

# State Route 16 Safety Improvement Project

YOLO COUNTY, CALIFORNIA  
DISTRICT 3 – YOL – 16 (PM 20.5/31.6)  
03-0C4700  
03-0000-0015

## Initial Study with Proposed Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation



February 2015

## General Information about This Document

### What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of the proposed project located on State Route (SR) 16 in Yolo County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This document tells you why the project is being proposed, what design options we have considered for this project, how the existing environment could be affected by the project, the potential impacts of the build alternative, and the proposed avoidance, minimization, and/or mitigation measures.

### What you should do:

- Please read this document.
- Additional copies of this document and the related technical studies are available for review at the Yolo County Library – Esparto, 17065 Yolo Avenue, Esparto, CA 95627. The document is also available on the Internet at <http://www.dot.ca.gov/dist3/Projects/0C470/prjindex.htm> or at Caltrans District 3 Office, 703 B St., Marysville, CA 95901, M-F from 8 AM-4 PM.
- We welcome your comments. If you have any comments regarding the proposed project, please attend the public information meeting on Wednesday, February 25, 2014 and/or send your written comments to Caltrans by the deadline.
- Submit comments via postal mail to: Chris Carroll, Environmental Coordinator, Caltrans District 3 Environmental Planning, 703 B Street, Marysville, CA 95901
- Submit comments via email to [chris.carroll@dot.ca.gov](mailto:chris.carroll@dot.ca.gov).
- Submit comments by the deadline: **March 10, 2015**.

### What happens next:

After comments are received from the public and reviewing agencies, Caltrans may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Dennis Keaton, Public Information Office, California Department of Transportation, 703 B St., Marysville, CA 95901; (530) 741-5474. Voice, or use the California Relay Service TTY number, 711

SCH:  
03-YOL-16 PM 20.5/31.6  
03-0000-0015  
03-0C4700

State Route 16 Safety Improvement Project  
03-YOL-16-PM 20.5/31.6  
03-0000-0015  
EA 03-0C4700

**INITIAL STUDY with Proposed Mitigated Negative Declaration**

Submitted Pursuant to: (State) Division 13, California Resources Code

THE STATE OF CALIFORNIA  
Department of Transportation

  
JOHN D. WEBB, Office Chief  
North Region Environmental Services

January 28, 2015  
Date

## **PROPOSED MITIGATED NEGATIVE DECLARATION**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

SCH No.  
03-YOL-16-PM 20.5/31.6  
03-0C470  
03-0000-0015

## **PROPOSED MITIGATED NEGATIVE DECLARATION**

Pursuant to: Division 13, Public Resources Code

### **Project Description**

The California Department of Transportation (Caltrans) proposes to improve the safety at three separate locations along SR-16 near the communities of Madison and Esparto in Yolo County. The scope of work would include:

- Widening and paving shoulders to 8 feet
- Providing a 20-foot wide Clear Recovery Zone (CRZ) on each side of the highway
- Installing rumble strips in the shoulders
- Adding a left turn pocket for County Road 79
- Straightening two horizontal curves (increasing the curve radius)
- Replacing or extending culverts as needed

In addition, at the intersection of SR-16 and CR-89 between Madison and I-505, the project would either:

- Widen and add a traffic signal, or
- Add a roundabout, or
- Widen and maintain the existing all-way stop

### **Determination**

The proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have **no effect** on the coastal zone, wild & scenic rivers, parks and recreational facilities, growth, geology/soils/seismic/topography, and paleontology;

The proposed project would have **no significant effect** on land use, farmlands/timberlands, community character and cohesion, environmental justice, utilities/emergency services, traffic and transportation/pedestrian and bicycle facilities, visual/aesthetics, cultural resources, hydrology and floodplain, water quality and storm water runoff, hazardous waste/materials, air quality, noise, plant species, animal species and invasive species;

The proposed project would have **no significant adverse effects** on visual/aesthetics, natural communities, wetlands and other waters, and threatened and endangered species because the following mitigation measures would reduce potential effects to less than significant:

#### Visual

- Option "A" (part of location 1) is built Caltrans shall design and prepare a re-vegetation plan (RP) which would serve to minimize impacts. The plan shall be jointly prepared by a landscape architect and biologist. The RP would include measures to replace existing native riparian vegetation that will be removed or indirectly affected by construction of the proposed project. The RP shall include planting concepts, specifications, riparian restoration and wetland planting plans, plant species, sizes and quantities. The biologist would take the lead on the RP with the help of landscape architecture to design a conceptual plan for the RP.

#### Natural Communities

- Impacts to approximately 76 Valley oak trees would be mitigated either through replacement planting on-site within Caltrans right-of-way or through the purchase of credits at a mitigation property.

#### Wetlands and Other Waters

- Direct impacts to approximately 0.04 acre of potentially jurisdictional wetlands would be mitigated at a 1:1 ratio by creating wetlands on-site. Indirect impacts to 0.28 acre of potentially jurisdictional wetlands would be mitigated at a 1:1 ratio.
- Permanent impacts to 1.8 acres of jurisdictional other Waters of the U.S. would be mitigated on-site at a 1:1 ratio by creating vegetated buffers along the impacted waterways in the project area. Temporary impacts to 2.75 acres of jurisdictional other Waters of the U.S. would be mitigated on-site at a 1:1 ratio by restoring vegetated buffers along disturbed waterways.

## Threatened and Endangered Species

### Valley Elderberry Longhorn Beetle (VELB)

- Caltrans proposes to purchase credits sufficient to compensate for the planting of 250 elderberry shrubs, and an additional 290 associated native plantings from a U.S. Fish and Wildlife Service (USFWS) approved conservation bank that services the proposed project area.

### Giant Garter Snake (GGS)

- Impacts to 0.61 acre of aquatic and upland GGS habitat would be mitigated through the onsite relocation, slope improvement and revegetation of South Fork Willow Slough.

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*JOHN D. WEBB, Office Chief*  
*North Region Environmental Services*

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*Date*

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## **Chapter 1 Proposed Project**

### **Introduction**

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Yolo County, California. Caltrans is the lead agency under CEQA. The document explains why the project is being proposed, what design options we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the design options, and the proposed avoidance, minimization, and/or mitigation measures.

### **Background Information**

In December 2005, a Draft EIR/EA for a more expansive project on SR-16 was circulated for public review and comment, with the comment period expiring on January 23, 2006. Caltrans received many comments from members of the public and reviewing agencies regarding this project's alternatives and environmental impacts. Caltrans then evaluated the comments and reexamined the project. As a result, Caltrans prepared a new Draft EIR/EA (2009 DEIR/EA) that presented a refined project alternative and additional discussions of environmental impacts. The 2009 DEIR/EA was then circulated for public review and comment from May 6, 2009, to June 19, 2009. The 2009 FEIR/EA was approved in December 2009. On January 6, 2010, a Petition for Writ of Mandate was filed in the Sacramento Superior Court, challenging the EIR and the approval of the project. Following court proceedings, the judge agreed with most of the petitioners' contentions and on July 28, 2011, ordered the issuance of the writ, requiring Caltrans to decertify the EIR, to comply with CEQA, and to take any further action required by law. In addition, the court retained its jurisdiction in this matter until Caltrans complied with the requirements of the writ. The court still retains jurisdiction over this matter. In response to the court's order, Caltrans decertified the EIR, and then sought to re-evaluate the need for the project. Following further study and evaluation, Caltrans determined that then-current conditions in the project area no longer required the type of extensive project previously pursued, and eventually determined that there were three locations that required safety improvements. The result of that determination is a much scaled-down project that is supported by this Draft Initial Study with Proposed Mitigated Negative Declaration.

### **Project Funding**

This project is programmed under the State Highway Operation and Protection Program (SHOPP) 201.010 Safety Improvement Program, using state and federal funds. Project construction capital costs are estimated at \$20.9 million.

## **Purpose and Need**

The purpose of this project is to improve traffic safety at three locations along SR-16 (PM 20.5/21.3, PM 23.2/23.5 and at PM 28.2/31.6) by providing improvements that address the observed collision patterns in these locations. In recent years the traffic volumes on SR 16 have increased within the project limits, along with increases in collisions in certain areas that are above the statewide average for similar facilities. Examination of collisions along the corridor revealed three locations where the collision numbers are higher than those in the adjoining segments.

The Traffic Safety Index (TSI) is the tool used for evaluating safety benefits of highway improvement projects. It is a measure of the collision cost saved by motorists expressed as a percentage of the improvement's capital cost. The TSI is determined by estimating the number and cost of collisions that may occur on the existing facility if no further improvement is made, and subtracting from it the number and cost of collisions that are expected to occur with the improvement.

The number and severity of collisions at these three locations support a Safety Index of greater than 200 (translating to a benefit/cost ratio of greater than 2:1) when improvements such as shoulder widening and curve improvements are proposed, making these locations eligible for Highway Safety Improvement Program funding. This represents the collision cost savings of the proposed project.

### Location 1: PM 20.5/21.3

This location consists of two horizontal curves where SR-16 intersects County Road (CR) 79 (2-way stop controlled on County Road 79).

### Location 2: PM 23.2/23.5

This location consists of a horizontal curve just west of County Road (CR) 82B. This curve has seen a pattern of run-off-road and overturn collisions.

### Location 3: PM 28.2/31.6

This location is a long section of highway connecting the town of Esparto with Interstate 505. The route passes through the small community of Madison, along with several minor road intersections with County Roads 21A and 89. There are a variety of collision types along this corridor including rear end/broadsides at intersections, run-off road and head-ons in-between intersections.

## **Project Description**

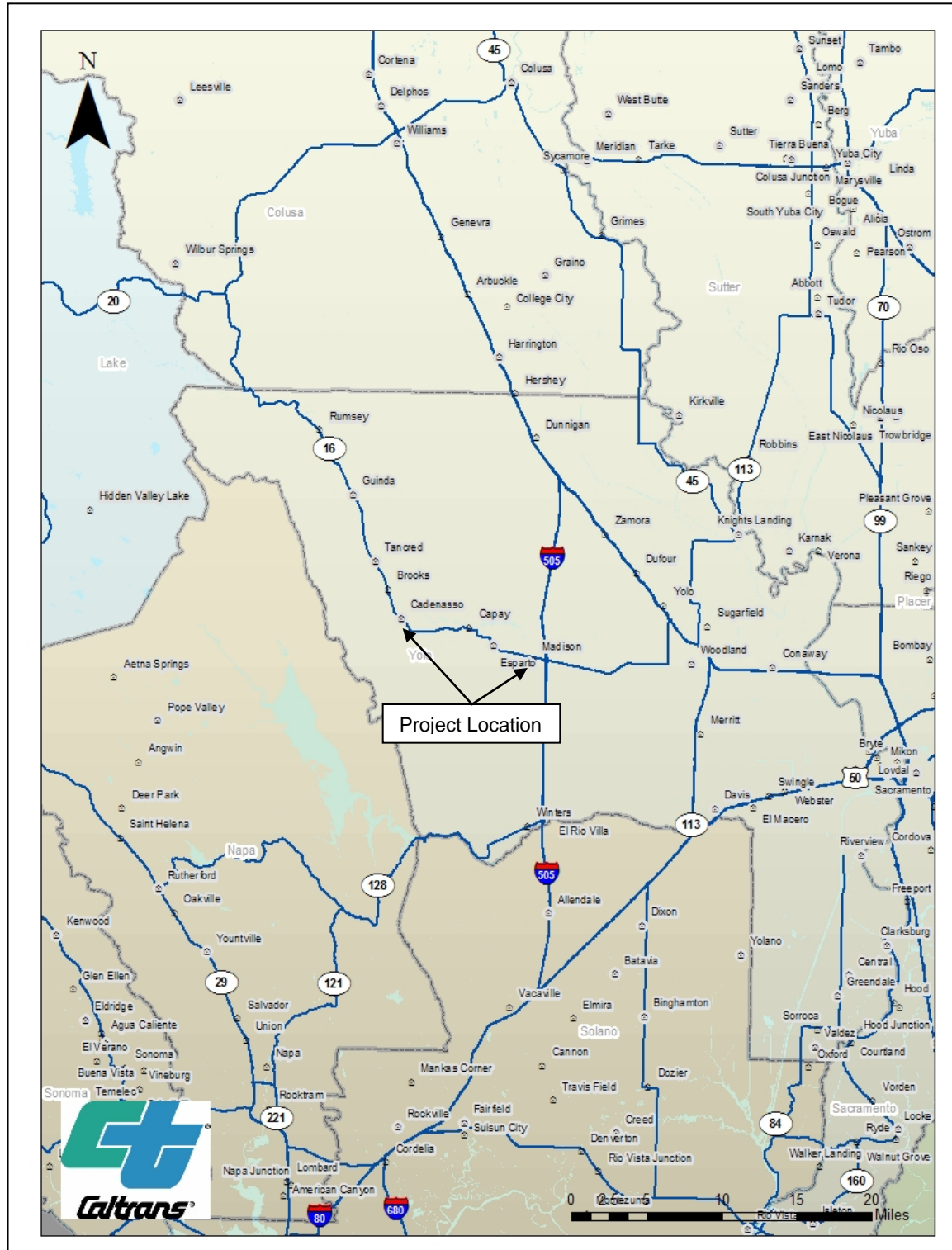
The California Department of Transportation (Caltrans) proposes to improve the safety at three separate locations along SR-16 near the communities of Madison and Esparto in Yolo County. The scope of work would include:

- Widening and paving shoulders to 8 feet
- Providing a 20 foot Clear Recovery Zone (CRZ) on each side of the highway
- Installing rumble strips in the shoulders
- Adding left turn pockets and/or a two way left turn lane
- Straightening horizontal curves
- Replacing or relining culverts as needed

In addition, at the intersection of SR-16 and County Rd 89 between Madison and I-505, the project would either:

- Widen and add a traffic signal, or
- Add a roundabout, or
- Widen and maintain the existing all-way stop

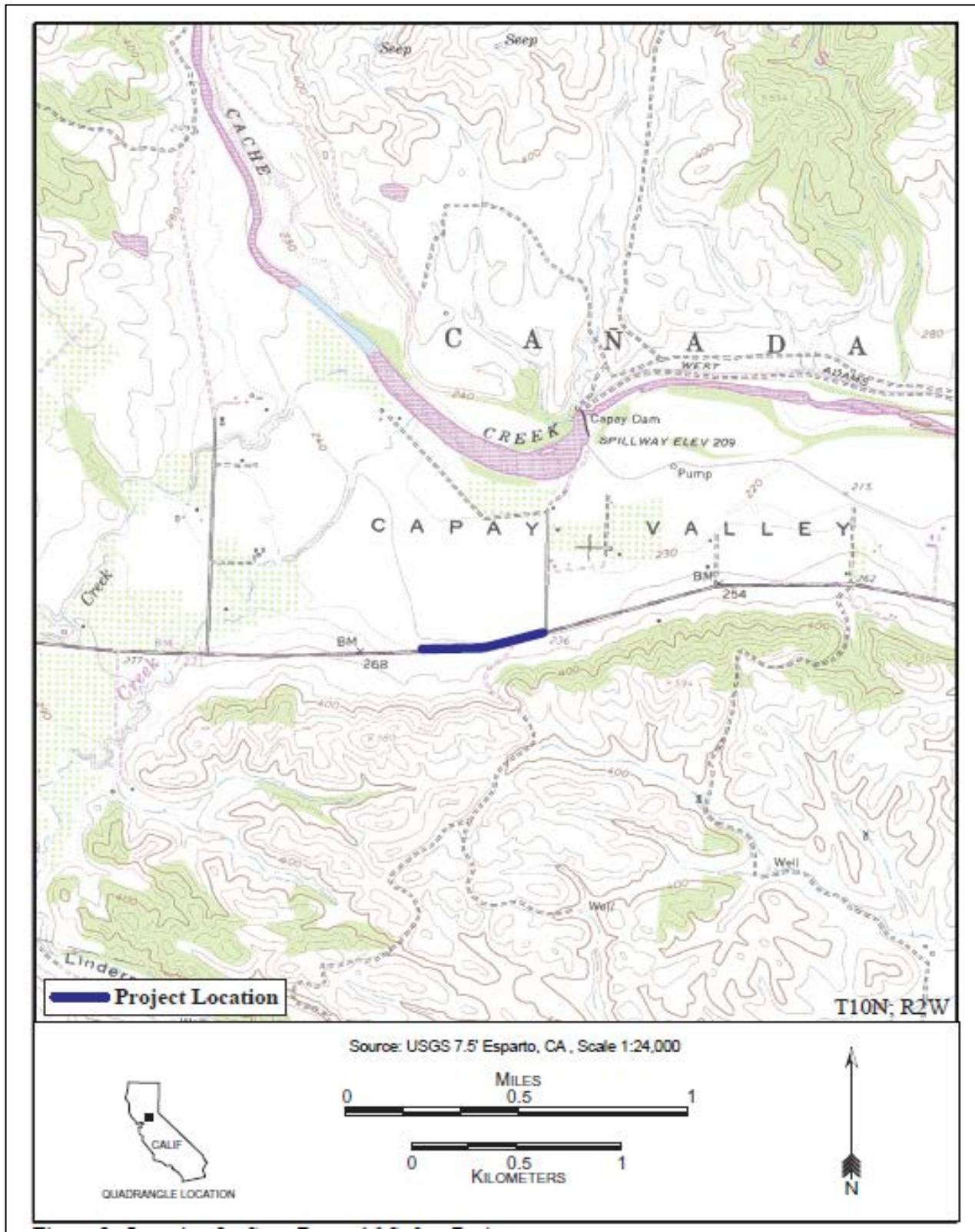
## PROJECT LOCATION MAP





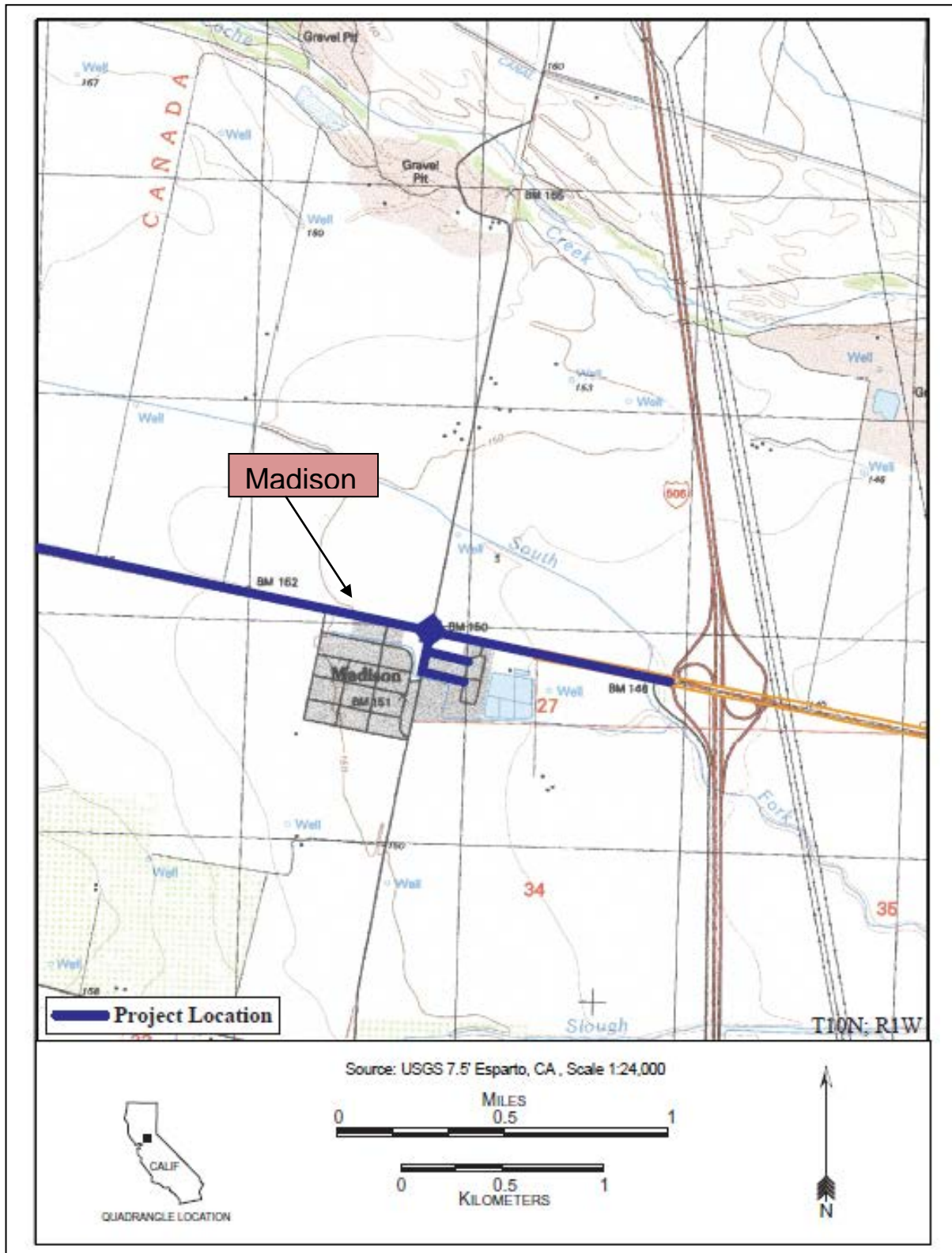


**Location 2 (PM 23.2/23.5)**





**Location 3 continued**





## Alternatives

### BUILD (ACTION) ALTERNATIVE

Caltrans proposes to improve the safety of three separate locations along SR-16 (PM 20.5/21.3, PM 23.2/23.5 and at PM 28.2/31.6) in Yolo County. The scope of work would include:

Location 1 - County Road (CR) 79, from 0.35 miles west of CR-79 to 0.40 miles east of Co Rd 79, postmiles (PM) 20.5/21.3 (0.8 miles)

- Widening and paving shoulders to 8 feet
- Providing a 20-foot wide Clear Recovery Zone (CRZ) on each side of the highway
- Installing rumble strips in the shoulders
- Adding a left turn pocket for County Road 79
- Straightening two horizontal curves (increasing the curve radius)
- Replacing or extending culverts as needed
- Performing additional work described in Design Option A or Design Option B

Design Option A work

- Shifting the alignment north to avoid impacts to a residence

Design Option B work

- Shifting the alignment south to reduce impacts to Taylor Creek

This location has seen a pattern of rear-end and run-off-road-hit-object collisions. This collision pattern can be improved through the addition of left-turn lanes, the creation of wider shoulders, establishment of a 20-foot wide CRZ, and improvement of the curve radii. This will provide the following benefits:

- More room for errant vehicles to recover
- More room for drivers to evade other vehicles or obstacles
- The opportunity for right-turning vehicles to leave the through lane as they slow to turn
- Allows farm equipment to travel along the highway with reduced impact to traffic
- Reduced likelihood of a vehicle losing control in the curve
- Reduced potential for rear end collisions by providing left turn pockets that allow drivers to remove themselves from the through traffic lane as they stop and wait for a gap in oncoming traffic
- Allow additional room for law enforcement to conduct traffic enforcement stops
- More room for bicyclists and pedestrians

Location 2 – West of CR-82B, from 0.34 miles west of CR-82B to 200 feet. west of CR-82B, PM 23.2/23.5 (0.3 miles)

- Widening and paving shoulders to 8 feet
- Providing a 20-foot wide CRZ on each side of the highway
- Installing rumble strips in the shoulder
- Flattening the vertical curve
- Straightening the horizontal curve (increasing the curve radius)
- Flattening the vertical curve (increasing the length)
- Replacing or extending culverts as needed

This collision pattern for Location 2 would be improved through the creation of wider shoulders, establishment of a 20-foot wide CRZ, and improvement of the curve radius, and would provide the following benefits:

- More room for errant vehicles to recover
- more room for drivers to evade other vehicles or obstacles
- Reduced likelihood of a vehicle losing control in the curve
- Allow additional room for law enforcement to conduct traffic enforcement stops
- More room for bicyclists and pedestrians

Location 3 – Esparto to Interstate (I)-505, from 350 feet west of CR-21A to South Fork Willow Slough, PM 28.2/31.6 (3.4 miles)

Esparto to Madison

- Widening and paving shoulders to 8 feet
- Providing a 20-foot wide CRZ on each side of the highway
- Installing rumble strips in the shoulders
- Shifting the alignment to the north to avoid residential and commercial development
- Replacing or extending culverts as needed
- Adding a Two Way Left Turn Lane (TWLTL) from 560 feet west of CR-86A to 570 feet east of CR-86A

Madison to I-505

- Widening and paving shoulders to 8 feet
- Providing a 20-foot wide CRZ on each side of the highway
- Installing rumble strips in the shoulders
- Shifting the alignment to the north to avoid residential development
- Replacing or extending culverts as needed
- Adding a two-way left turn lane (TWLTL) from 100 feet west of Tutt St. to CR-90.
- Provide additional access to the Madison Migrant Center off of CR-89 (Optional)
- Providing additional work described in Design Option A, B, or C below:

Design Option A work

- Widening and adding a traffic signal at the SR-16/CR-89 intersection

Design Option B work

- Adding a roundabout at the SR-16/CR-89 intersection

Design Option C work

- Widening and maintaining the existing all-way stop at the SR-16/CR-89 intersection

Several different roadway improvements are proposed to address the collision patterns at Location 3, including widening shoulders, improving the clear recovery zone, installing left turn pockets, and two-way left turn lanes, and improving intersection controls.

Widening the shoulders and establishing of a 20-foot wide CRZ on each side of the highway offers the following benefits:

- More room for errant vehicles to recover
- More room for drivers to evade other vehicles or obstacles
- More room for drivers to bypass left-turning vehicles
- Permits right-turning vehicles to leave the through lane as they slow to turn
- Allows farm equipment to travel along the highway with reduced impact to traffic
- Room for law enforcement to conduct traffic enforcement stops
  
- More room for bicyclists and pedestrians

Two-way left-turn lanes provide benefits similar to left-turn pockets. They allow drivers to remove themselves from the through traffic lane as they stop and wait for a gap in oncoming traffic. They also offer a refuge area for left-turning drivers turning from the side road/driveway to clear one direction of traffic while they wait for an opening in the other.

For construction purposes, Location 2 is proposed to begin construction in 2016 and Locations 1 and 3 are proposed to begin construction in 2017.

## **NO-BUILD (NO ACTION) ALTERNATIVE**

The No-Build alternative would make no improvements to the existing roadway and would have neither construction nor environmental impacts; however, routine maintenance would still occur as necessary. By not making any improvements, this alternative would fail to deliver the safety improvements the project is intended to provide and not meet the purpose and need for the project.

## ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

This project is very narrow in scope and only addresses work at three locations that are supported by justification of the work at those three specific locations.

As a result there are no viable alternatives to these proposals; however, there are design options are considered within each location.

## INTERIM CALTRANS PROJECTS

Over the last several years, a number of traffic warning, regulatory, and guide signs have been installed within and adjacent to the project limits. Reflective pavement markers and a flashing beacon were installed at the Capay curve, and both have helped reduce accidents at this location. Additional guide signs were placed to give information as to highway routes, direction, destination and points of interest. Also, several smaller location-specific projects have been completed that have resulted in improved safety at those specific locations.

### INTERIM SAFETY PROJECTS

| PROJECT   | LOCATION  | STATUS                               |
|---|---|--------------------------------------|
| Super-elevation improvements & metal beam guardrail   | Capay Curve and two curves west of Capay            | Completed 2004                       |
| Install four way flashing beacon  | At CR-89  | Completed 2004                       |
| Install inverted thermoplastic on centerline  | From I-505 to Brooks<br>(Except in Esparto & Capay) | Completed 2003                       |
| Improve sight distance (Tree Removal)   | At CR-85B   | Completed 2003                       |
| International striped crosswalks  | Esparto   | Completed 2003 and repainted in 2004 |
| Left-turn centerline re-stripe along Yolo Ave.  | Esparto   | Completed 2004                       |
| Install 45 MPH sign, Install no-passing stripe, add 55 MPH and 35 MPH signs, daylight headlight signs, etc. | Various locations                                   | Completed 2001/2002                  |
| Signalize intersection and access improvements  | Cache Creek Casino frontage                         | Completed 2004                       |
| Signalize intersection  | Northbound I-505 exit to SR-16                      | Completed 2005                       |
| Capay shoulders   | SR-16 through Capay                                 | Completed 2008                       |

## **Permits and Approvals Needed**

The following permits, reviews, and approvals would be required for project construction:

| <b>Agency</b>                                   | <b>Permit/Approval</b>  | <b>Status</b>  |
|---|---|--|
| United States Fish and Wildlife Service         | Section 7 Consultation for Threatened and Endangered Species (VELB and GGS) | A Biological Opinion (BO) will be obtained prior to the approval of the final environmental document |
| United States Army Corps of Engineers           | Section 404 Permit for filling or dredging waters of the United States      | Permits will be obtained prior to approving the project for construction                             |
| California Department of Fish and Wildlife      | 1602 Streambed Alteration Agreement   | Permits will be obtained prior to approving the project for construction                             |
| California Regional Water Quality Control Board | Section 401 Permit Certification  | Permits will be obtained prior to approving the project for construction                             |

## **Chapter 2 – Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures**

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified.

Consequently, there is no further discussion regarding these issues in this document.

- **Coastal Zone** – The project is not in a coastal zone.
- **Wild and Scenic Rivers** – The project is not in or adjacent to a designated Wild and Scenic River.
- **Parks and Recreational Facilities** – The project is not adjacent to or within any Parks and Recreational Facilities.
- **Growth** – This is a traffic safety project that does not increase capacity and has no potential to impact growth.
- **Geology/Soils/Seismic/Topography** – This is a traffic safety project with no potential for adverse impacts to the geology, soils, and topography of the project area.
- **Paleontology** – Based on previous environmental studies and construction projects in the area, there is no potential for adverse impacts to paleontological resources.
- **Air Quality** – The Air Quality Analysis shows there is no potential for adverse impacts to air quality; however, temporary impacts to air quality are discussed in the Construction Impacts section.
- **Noise** - The Noise Analysis shows there is no potential for adverse impacts to noise levels; however; temporary impacts from noise are discussed in the Construction Impacts section.

## **Human Environment**

### **LAND USE**

#### **Existing and Future Land Use**

The proposed project runs through the towns of Madison and Esparto. In general, residents in the area refer to themselves as residents of Capay Valley, which extends from the Yolo County/Lake County boundary to the Capay Dam and includes the communities of Rumsey, Guinda, Brooks, and Capay. For the purposes of this document, “Capay Valley” will also include the communities of Esparto and Madison.

Capay Valley is home to approximately 4,500 residents, or about three percent of Yolo County’s population. Nearly 90 percent of Yolo County’s residents live in the four incorporated cities of: Woodland, Davis, West Sacramento and Winters, all of which are situated along major interstate freeways east and south of the project area. None of the communities in the Capay Valley are incorporated cities.

Land use in the project area is divided between urban and agricultural. Within the developed areas of Capay, Esparto, and Madison there are areas set aside for residential, commercial, industrial, and public uses. Outside of these communities, along the SR-16 corridor, there are only two zoning classifications: Agricultural (A-1) and Agricultural Preserve (AP). The minimum parcel size allowable in A-1 zones is 20 acres. In AP zones, the minimum parcel size is 80 acres, if the land is irrigated, and 160 acres in non-irrigated areas. These minimum parcel sizes are designed to ensure that parcels are large enough to sustain agricultural production while minimizing impacts on adjacent non-agricultural parcels.

Capay Valley has seen several changes over the past 20 years. There is a strong public perception that the expansion of the Cache Creek Casino Resort (Casino) has fueled many new developments. What began as a bingo hall in 1985 is now a resort destination featuring a number of amenities and contributing heavily to the area’s economy. Recently completed or proposed projects for the Capay Valley Region are as follows:

- Yocha-De-He Golf Club is an 18-hole golf course located on land adjacent to the Casino. It opened to the public in early 2008 and is operated by the Rumsey Band of Wintun Indians.
- In 2004, an expansion of the Casino facilities was completed. These additions to the Casino’s complex include a 200-room hotel, a 1,883-space multi-level parking garage, expanded gaming facilities, a spa, nightclub, and eight restaurants. Upon completion the facility was enlarged to approximately 415,000 square feet. Before the 2004 expansion, the facility was approximately 113,000 square feet and featured

a surface parking lot, mini-mart and gas station, tribal administration offices, a community center, and wastewater treatment plant.

- In 2007, the Rumsey Band of Wintun Indians proposed an expansion of the current Cache Creek Casino Resort into the Cache Creek Casino Destination Resort. The Tribe filed a Notice of Preparation (NOP) with the State Clearinghouse on July 2, 2007, and in April 2008, the Tribe released a draft Tribal Environmental Impact Report (TEIR). The Tribe certified the final TEIR in September 2008. The project, as identified, will include construction of 467 guest rooms in a ten story hotel, 27 hillside casitas, four new formal restaurants, three new swimming pools, two small restaurants, an event/conference center featuring a 2,300 seat entertainment venue, three to four new retail shops, six new spa treatment rooms, 23,000 square feet of additional gaming space, office space, related support facilities and utilities, and 2,410 additional parking spaces. The Cache Creek Destination Resort Draft TEIR identified an expansion of the Tribal Government Center as well as construction of 30 homes north of the project site. These developments are only conceptual at this time and no further information is available. There is no estimated time for construction.
- Parker Place, Country West II, and Esperanza Estates were constructed in 2011 and 2012 on the west side of Esparto adding approximately 225 single-family homes to the area.
- Ryland Homes Lopez Subdivision in Esparto was approved and began construction in 2006 and has added 72 single-family homes to the area.
- In 2005, the Esparto Unified School District released a draft Environmental Impact Report for the proposed Esparto High School. This 65-acre site will include academic and school office buildings, athletic fields, a student center, tennis courts, basketball courts, parking for students, teachers, and buses, and an agricultural sciences area. The site is currently zoned AP (Agricultural Preserve) and is subject to a Williamson Act contract. The site is adjacent to SR-16 and west of CR-85B, between Esparto and Madison. The proposed new Esparto High School is on hold and there is no estimated time for construction.
- A site east of Madison and adjacent to SR-16 and CR-90, has been identified as a potential site for a Secure Community Reentry Facility (Reentry Facility). In September 2008, the Yolo County Board of Supervisors authorized the signing of a "Reentry Program Facility Siting Agreement" between the County and the California Department of Corrections. The County additionally entered into an Option to



Purchase agreement for the Kathyanna Ranch property, the potential location of this Reentry Facility. This agricultural property is currently subject to a Williamson Act contract. As of 2014, the project has never materialized.

- There are several proposed projects within developed areas along SR-16. They include: a proposed retail store at the corner of SR-16 and CR-86A and a proposed mixed-use building along Yolo Avenue between Madison Street and Grafton Street in Esparto.
- There have been numerous Caltrans improvements to SR-16 in this area including normal maintenance activities, such as left-turn lane re-striping. The largest project constructed on the highway recently, in 2011, was the improvement to SR-16 in front of the Casino. This project was partially funded by the Casino and was designed in anticipation of increased business to the site.

### **Consistency with State, Regional, and Local Plans and Programs**

The general plans and guidances that cover the Project Area include the Yolo County General Plan, Capay Valley General Plan, Esparto General Plan, Madison General Plan, and the Municipal Service Review and Sphere of Influence for the Madison Community Service District.

#### **Yolo County General Plan**

In November 2009, Yolo County adopted its 2030 Countywide General Plan. The 2030 Countywide General Plan continues to strongly emphasize protection for agricultural lands. The approved plan proposes a Preferred Land Use Alternative, which was adopted by the Yolo County Board of Supervisors. This Preferred Land Use Alternative identifies the following overall goals:

- The continuing primary focus on agriculture and related endeavors throughout the County, particularly as related to economic development and job creation.
- Standards for sustainability, community identity, rural service standards, job-housing match and balance, energy conservation, protection of natural resources, smart growth, community health and safety, and efficient and responsible transportation options.
- Limited residential and other related community development primarily within the existing towns and only under certain sustainable conditions.

- Use of community-based planning processes for the development of agricultural districts and specific plans.

The Circulation Element of the Yolo County 2030 Countywide General Plan states that SR-16 from CR-78 (just west of the Casino) to CR-85B (just west of Esparto) needs spot improvements “including but not limited to intersection control and lane configuration improvements, passing lanes and/or wider travel lanes and shoulders.” SR-16 from CR-21A (just east of Esparto) to Interstate 505 is identified as needing expansion to 4 lanes to accommodate future travel demands. In addition, a segment of CR-21A connecting these two sections of SR-16 (although not a part of the highway system) would be upgraded to a major two-lane county road standard. While the 2030 General Plan is intended to supercede the Land use and Circulation Elements of the prior general plan, there is no specific discussion within the plan of the timing of this facility expansion.

### **Capay Valley Area General Plan**

The Capay Valley Area General Plan was completed in May 1982 as an amendment to the Yolo County General Plan. In September 2007 a Capay Valley Area General Plan Update (Area Plan) was released. Like the 1982 version, this updated Area Plan places strong emphasis on protection of agricultural resources of the Capay Valley. The Area Plan also encourages road improvements to accommodate farm equipment in a practical manner and the construction of bike lanes whenever practical or possible.

### **Town of Esparto General Plan**

The Town of Esparto General Plan, originally prepared in 1982, was updated in 1996 and again in April 2007. Esparto’s General Plan serves to supplement the Yolo County General Plan. Esparto’s General Plan “is intended to result in a compact and recognizable small town having its own character – rather than the aimless sprawl associated with so many developing urban areas.” The plan also emphasizes the importance of accommodating farm machinery on main routes. A widening to four lanes of SR-16 is also not currently called for in the existing Town of Esparto General Plan.

### **Consistency of the Proposed Project**

All of the planning documents applicable to this area emphasize the importance of farmland and the rural character of the area. The proposed project remains consistent with the circulation policies enumerated in the Yolo County General Plan, the Town of Esparto General Plan, and the Capay Valley Area General Plan. These policies emphasize safety, including that of farm equipment and bicycles. The proposed project is designed to improve safety for all roadway users. By providing standard shoulders and a clear recovery zone, the

project would help to eliminate obstacles for wide farm equipment attempting to use the roadway. The wider shoulders also improve the roadway for bicycle and pedestrian use.

Additionally, the County's Zoning Code requires private interests to offset the conversion of agricultural land by providing for conservation easements at a 1:1 ratio. As a state agency, Caltrans is not subject to this requirement. However, Caltrans is bound by state and federal environmental laws to ensure to the greatest extent possible that its activities do not result in substantial impacts to the environment. The predominant zoning in the project area is for agricultural uses. Since the project would not prevent the continued use of land adjacent to SR-16 right of way as farmland, the project is consistent with local zoning and with the plans for this area.

### **Environmental Consequences**

The majority of land use adjacent to SR-16 within the project limits is farmland. Portions of these parcels would need to be acquired to construct this project. The acquisition of this land is not expected to substantially affect existing agricultural designations or any other existing or future land uses.

### **CEQA Considerations**

Less than significant impacts to state, regional and local plans pursuant to CEQA are anticipated.

### **Avoidance, Minimization, and/or Mitigation Measures**

- No avoidance, minimization and/or mitigation measures are required for Existing and Future Land Use.

## **FARMLANDS**

### **Regulatory Setting**

CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses. Coordination with the Natural Resources Conservation Service (NRCS) and the California Department of Conservation will occur throughout the project development process.

## **Affected Environment**

A Farmland Assessment was completed in April 2014. According to the Yolo County Agriculture Department, in 2012, Yolo County's agricultural production was worth approximately \$645 million dollars. Yolo County ranked 23<sup>rd</sup> in the state for agricultural production, with one percent of total statewide agricultural output. Top agricultural commodities include tomatoes, wine grapes, cattle, and corn. Capay Valley is predominantly known for its walnuts and almonds, as well as wine grape production. The Capay Valley is also home to several small, family-owned farms that sell produce directly to homes in the region on a subscription basis.

Much of the land involved in the project area is either Prime Farmland or Farmland of Local Importance. Additionally, many of the agricultural parcels adjacent to SR-16 are currently under Williamson Act contracts.

Agricultural equipment using the highway in the project area averages in width from 14-16 feet. Given these widths, agricultural equipment is likely to use an entire vehicle lane (approximately 12-feet wide) as well as the roadway's shoulders, which are in some places unpaved or nonexistent.

## **Environmental Consequences**

### **Farmland**

The proposed project would acquire a total of approximately 30 acres of farmland from 16 parcels, including approximately 13 acres on 11 parcels under Williamson Act contracts. The Natural Resources Conservation Service (NRCS) and the California Department of Conservation were consulted about the proposed project and its potential impacts to farmland.

The use of slivers of large parcels of farmland in order to create a safer highway would not likely have a substantial impact on farming in this area. Some areas outside of the new right-of-way (R/W) may be returned to adjacent property owners pending negotiations with Caltrans R/W staff after project approval. Within the context of the ample farmland supply in Yolo County, the proposed project would not pose a serious threat to this resource.

### **Williamson Act**

Several of the parcels adjacent to SR-16 within the project limits are currently under Williamson Act contracts. Several proposed work locations do require some acquisition of Williamson Act contract lands.

According to the California Department of Conservation, Yolo County had 418,893 acres of land subject to Williamson Act contracts in 2009. The removal of an estimated 13 acres of Williamson Act contract land within the project area represents less than one percent of this total.

For several parcels under contract, there will be no acquisition of land in fee. County and state drainage easements will be acquired as well as, in a few cases, temporary construction easements. These drainage easements will not preclude continued agricultural use or continued enrollment in the Williamson Act program.

Additionally, Yolo County has established minimum acreages for establishment for Agricultural Preserves. Under Yolo County Code Section §8-2.407, the minimum acreage requirement for the establishment of an agricultural preserve shall be 100 acres total, however there are exceptions for inclusion into existing contiguous agricultural preserves. The California Department of Conservation has established minimum acreage requirements for new Williamson Act contracts. In § Section 8-2.407.5 the minimum acreage requirement for new Williamson Act contracts is 40 or 80 gross acres, depending upon the soil type and irrigation status. However, these minimum acreage requirements only apply to new Williamson Act contracts and should not impact any of the parcels that will be subject to acquisition under this project.

According to Government Code Section 51292 no public agency or person shall locate a public improvement within an agricultural preserve unless the following findings are made:

- (a) The location is not based primarily on a consideration of the lower cost of acquiring land in an agricultural preserve.
- (b) If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement.

According to Government Code Section 51293, Section 51292 shall not apply to:

- (g) All state highways on routes as described in Sections 301 to 622, inclusive, of the Streets and Highways Code, as those sections read on October 1, 1965.

Because many of the parcels adjacent to SR-16 are currently under Williamson Act contracts there are areas in which no roadway widening could occur without some impact to Williamson Act lands. The need for safety improvements in these areas means that some of this land must be acquired for the purpose of bringing the roadway up to current highway standards. The project has been designed to avoid impacts as much as possible while meeting current highway standards. There are no reasonably feasible alternatives to

avoiding contracted land. Although state highways are not subject to Section 51292, the findings required by Government Code Sections 51292(a) and 51292(b) can be made since the use of Williamson Act land is not based primarily on cost; it is based on necessity and on the existing highway's condition.

Of the 11 Williamson Act parcels affected by the proposed project, all would involve the acquisition of less than ten percent of the total acreage under contract.

The project would require less than 13 acres of Williamson Act lands in its entirety.

The California Department of Conservation concluded the project may proceed pursuant to its findings specified in their response letter to Caltrans dated July 8, 2014. (See Appendix F)

### **Farmland Equipment**

The Caltrans Transportation Concept Report (TCCR) for SR-16 recommends paving unpaved turnouts and widening shoulders to current design standards where feasible to allow slow moving farm vehicles to pull off the highway and allow traffic to pass. The proposed project does not include turnouts but does include widening the paved shoulder surface. An eight foot wide shoulder would not be wide enough to allow tractors with large combines or other pieces of equipment to completely move out of the roadway. However, this would represent an improvement over current conditions; the current cross-section (two foot shoulders with 12-foot lanes) means that there is not enough room for a piece of farm equipment 16 feet wide on one side of the road.

The proposed build alternatives would accommodate farm equipment by providing a 20-foot CRZ that would be sloped at a 4:1 ratio wherever possible. This would represent an improvement over the existing narrow shoulder. According to California Motor Vehicle Code Section 21650(f), when a vehicle "is necessarily traveling so slowly as to impede the normal movement of traffic, that portion of the highway adjacent to the right edge of the roadway may be utilized temporarily" when safe. Currently, equipment of this width must utilize the oncoming traffic lane in order to stay on the road. Added shoulders would provide this equipment with enough room to temporarily occupy the shoulder to avoid oncoming traffic and to allow queued traffic to pass.

Widening the shoulders and improving the clear recovery zone in these three project locations would provide a wider and clearer line of sight for the agricultural equipment to move through the area.

## **CEQA Considerations**

Less than significant impacts to farmlands, Williamson Act properties, and farmland equipment pursuant to CEQA are anticipated.

## **Avoidance, Minimization, and/or Mitigation Measures**

- No avoidance, minimization and/or mitigation measures are required for Farmland.

## **COMMUNITY IMPACTS**

### **Community Character and Cohesion**

#### **REGULATORY SETTING**

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

#### **AFFECTED ENVIRONMENT**

Caltrans completed a Community Impact Assessment in April 2014. The Capay Valley is highly cohesive. People in the project area generally identify themselves as residents of their community (e.g., Esparto, Madison) and as residents of the Capay Valley. Residents of this area are likely to see each other frequently at the grocery store, the post office, businesses, and restaurants, as well as at school and church. Other factors contributing to the community's cohesiveness are the number of active civic organizations and the stability of the neighborhoods.

#### **ENVIRONMENTAL CONSEQUENCES**

Within the project limits SR-16 crosses through the towns of Esparto and Madison. The proposed project will not make any improvements within the town of Esparto. The proposed traffic safety improvements made within the town of Madison will not divide neighborhoods or separate residences from community facilities. No impacts to community character and cohesion are anticipated.

## **CEQA Considerations**

Less than significant impacts to community character and cohesion pursuant to CEQA are anticipated.

## **AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES**

- No avoidance, minimization and/or mitigation measures are required for Community Impacts.

## **Relocations and Real Property Acquisition**

### **REGULATORY SETTING**

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix C for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code [USC] 2000d, et seq.). Please see Appendix B for a copy of the Department's Title VI Policy Statement.

### **AFFECTED ENVIRONMENT**

A Relocation Impact Memorandum was completed in July 2014. This memo discusses the potential impacts to property owners, businesses, or persons in possession of real property to be acquired who would qualify for relocation assistance benefits or entitlements under the Uniform Relocation Assistance Act of 1970.

### **ENVIRONMENTAL CONSEQUENCES**

The proposed project would require the partial acquisition of twenty six parcels, three of which contain residences within or in close proximity to the new proposed R/W. These parcel acquisitions come from agricultural and residential parcels of land.

The exact number and size of full and partial acquisitions is subject to final design, which will occur after the final environmental document and project have been approved. Approximate proposed R/W lines can be seen on the Environmental Study Limit maps in Appendix F.

### **CEQA Considerations**

With the implementation of the below avoidance and minimization measures, less than significant impacts from relocations pursuant to CEQA are anticipated based on the



availability of single family residences that are equal to or better than the displacement properties available for rent or purchase.

## **Avoidance, Minimization, and/or Mitigation Measures**

### **Avoidance and Minimization Measures**

- Following project approval, Caltrans Right of Way staff would coordinate with affected property owners concerning compensation for loss of property.
- A Relocation Agent would contact all displacees after final environmental approval. The Relocation Agent would ensure that eligible displacees receive their full relocation benefits, including advisory assistance, and that all activities would be conducted in accordance the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (see Appendix C). Relocation resources shall be available to all displacees free of discrimination. At the time of the first written offer to purchase, owner occupants are given a detailed explanation of Caltrans' Relocation Program and Services.

### **Mitigation Measures**

- No mitigation measures are required for Relocations and Real Property Acquisitions.

## **UTILITIES/EMERGENCY SERVICES**

### **Affected Environment**

Telephone, fiber optic, and electrical lines parallel SR-16 throughout the project area. Two natural gas lines cross SR-16 at one location. The Esparto Wastewater Treatment Plant is located east of Esparto and north of SR-16. The Madison Wastewater Treatment Plant is located east of Madison and adjacent to SR-16 to the south. There are also several private wells within the project area.

The Esparto Community Services District (ECSD) operates the Esparto Wastewater Treatment Plant (WWTP) and its citywide collection system. Approximately half of the treatment ponds have been constructed and the other half are planned facilities. This plan is based on the ultimate build-out in Esparto and has been agreed upon by Yolo County and the Regional Water Quality Control Board. Recently the ECSD added several new monitoring wells to monitor groundwater in the vicinity of the treatment plant.

The Madison Services District operates the Madison Wastewater Treatment plant.

The California Department of Forestry and Fire Protection (Cal-FIRE) operates a fire station in Brooks, just west of Cache Creek Casino. Cal-FIRE handles forest fires and other emergencies, primarily on state lands. Emergency services are also provided by the Yolo County Sheriff's Office; the California Highway Patrol; the Capay Valley, Esparto and Madison Fire Protection Districts; and the Rumsey Rancheria Fire Department.

### **Environmental Consequences**

The proposed project may impact electrical, telephone, and fiber optic lines. All affected utilities would be relocated prior to construction. Utility lines would generally be relocated farther away from SR-16 between the CRZ and the new R/W for SR-16.

None of the existing treatment ponds at the Esparto WWTP would be affected by the proposed project. There is no anticipated date for development of any future ponds, as Esparto is not growing at a fast enough pace to dictate the need for these ponds in the near future.

All of the facilities of the Madison Services District, including treatment ponds, service lines, and monitoring wells, are south of SR-16 and should not be affected by the project.

Under post-construction conditions, the proposed project could benefit the public services in the study area, including law enforcement, fire, and emergency services, because existing emergency service provider routes would be enhanced by project improvements, including safety, circulation, and drainage improvements.

### **CEQA Considerations**

With the implementation of the below avoidance and minimization measures, less than significant impacts to utilities and emergency services pursuant to CEQA are anticipated.

### **Avoidance and Minimization Measures**

- All emergency response units in the project area would be notified of the project construction schedule and would have access to SR-16 throughout the construction period.

### **Mitigation Measures**

- No mitigation measures are required for Utilities/Emergency Services

## **TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES**

### **Regulatory Setting**

Caltrans, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally-assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 USC 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

### **Affected Environment**

#### **Traffic and Transportation**

SR-16 in Yolo County is a two-lane conventional highway with paved shoulder widths that vary from 0 feet to 2 feet. The terrain is generally level to rolling with predominantly agricultural and low-density land uses. CRZ along this corridor generally ranges from 2 feet to 12 feet. The posted speed limit is 55 mph, except in developed areas, where the speed limit is 25-45 mph.

This project is listed in the Caltrans 2012 State Route 16 Transportation Corridor Concept Report (TCCR). A TCCR is a long-term planning document that Caltrans prepares for each highway. The TCCR identifies current and future projects within the next 20 years. In addition, the TCCR includes an ultimate concept, which is the ultimate goal for the highway beyond 20 years. At this time, the ultimate concept for SR-16 for locations 1 and 2 is a two-lane conventional highway and for location 3 is four-lane conventional highway.

This project consists of three locations that Caltrans Traffic Safety has identified along this corridor that have collision rates that are higher than the statewide average for a similar facility.

## Traffic Volume

The traffic volumes for SR-16 were taken from the 2013 All Traffic Volumes on California State Highway System provided online by the Traffic and Vehicle Data Systems Unit. (<http://traffic-counts.dot.ca.gov/2013all/Route16-20.html>)

### Traffic Volumes – Peak Hour and Annual Average Daily Traffic

| Description                | Peak Hour<br>(veh/hr) | Peak Month<br>(veh/day) | AADT<br>(veh/day) |
|----------------------------|-----------------------|-------------------------|-------------------|
| <b>Location 1 &amp; 2:</b> | 950                   | 9900                    | 9300              |
| <b>Location 3:</b>         |                       |                         |                   |
| CR 21A to CR 89            | 1100                  | 12300                   | 11600             |
| CR 89 to I-505             | 1500                  | 14400                   | 13600             |

## Collision History

There were 66 collisions reported within the project limits for all three project locations and their associated date ranges<sup>1</sup>. The collision statistics are as follows:

### Location 1 (PM 20.5/21.3): 4/1/2006-3/31/2011

| Actual Collisions |                |        | Actual Rates Per Million Vehicle Miles |                |        | Average Statewide Rates Per Million Vehicle Miles** |                |        |
|-------------------|----------------|--------|--|----------------|--------|---|----------------|--------|
| Fatal             | Fatal + Injury | Total* | Fatal                                  | Fatal + Injury | Total* | Fatal   | Fatal + Injury | Total* |
| 0                 | 5              | 15     | 0.000                                  | 0.31           | 0.93   | 0.017   | 0.28           | 0.63   |

### Location 2 (PM 23.2/23.5): 4/1/2006-3/31/2011

| Actual Collisions |                |        | Actual Rates Per Million Vehicle Miles |                |        | Average Statewide Rates Per Million Vehicle Miles** |                |        |
|-------------------|----------------|--------|--|----------------|--------|---|----------------|--------|
| Fatal             | Fatal + Injury | Total* | Fatal                                  | Fatal + Injury | Total* | Fatal   | Fatal + Injury | Total* |
| 0                 | 8              | 13     | 0.000                                  | 1.23           | 1.99   | 0.017   | 0.28           | 0.63   |

<sup>1</sup> The date range used to identify collisions at each location is based upon the requirements specified in section 5.4.2 of the *Highway Safety Improvement Program Guidelines* for development of the Safety Index (SI) in order to achieve funding under the 010 Safety Improvement Program. Three, four, or five-year date ranges are selected in order to achieve a minimum threshold of 25 collisions. If 25 collisions cannot be identified in 5 years, then the collision data from the 5-year period is to be used.

**Location 3 (PM 28.2/31.6) 4/1/2008-3/31/2011**

| Actual Collisions |                |        | Actual Rates Per Million Vehicle Miles |                |        | Average Statewide Rates Per Million Vehicle Miles** |                |        |
|-------------------|----------------|--------|--|----------------|--------|---|----------------|--------|
| Fatal             | Fatal + Injury | Total* | Fatal                                  | Fatal + Injury | Total* | Fatal   | Fatal + Injury | Total* |
| 2                 | 23             | 38     | 0.045                                  | 0.52           | 0.85   | 0.017   | 0.30           | 0.70   |

\* All reported collisions including those without fatalities or injuries.

\*\* Statewide averages are determined by "rate groups," which take into account rural vs. urban settings, rolling vs. flat terrain and speed limit differences.

The total collision rate within the project area has improved since 1999-2002 when the collision rate was more than twice the statewide average. Since that time, several minor interim safety improvements have been made in order to reduce the number and severity of vehicular collisions including signage, striping, sight distance improvements, and curve super-elevation improvements. However, the collision data indicates that three locations continue to have higher than average collision rates.

### Intersection Traffic Analysis

#### SR-16/CR-21A

The SR-16/CR-21A intersection is a T intersection that operates under all-way stop control. Three private driveways access the highway within the limits of this intersection. The westbound right turn movement is a free right. There are no other turn lanes at this intersection. Traffic often uses CR-21A and CR-85B to "bypass" Esparto.

#### State Route 16 & County Road 21A

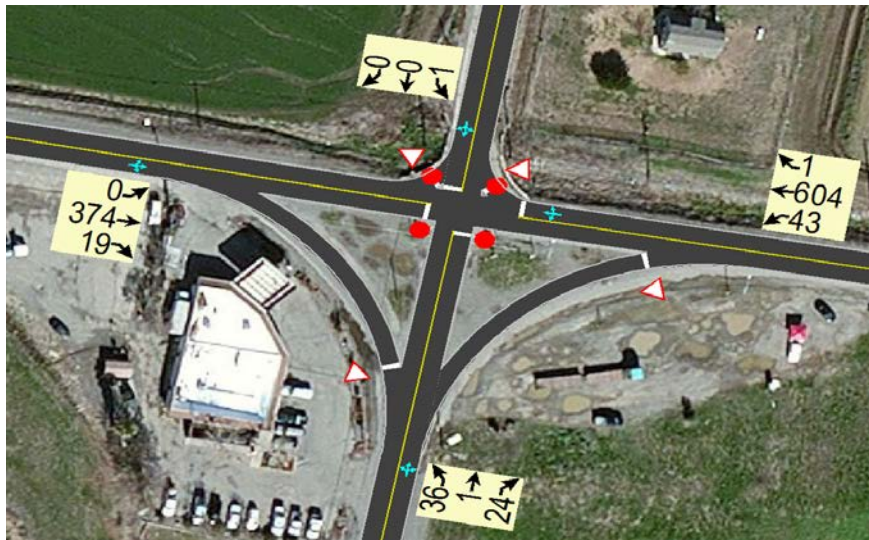


Caltrans uses the California Manual on Uniform Traffic Control Devices (California MUTCD) 2014, which includes signal warrants used to determine the need for a signal. SR-16/CR-21A met four of the nine warrants.

### **SR 16/CR-89**

The SR-16/CR-89 intersection operates under an all-way stop control with a red flashing beacon. There are free right turn movements in the eastbound and northbound directions. There are no other turn lanes at this intersection.

#### **State Route 16 & County Road 89**



SR-16/CR-89 met one of the nine signal warrants in the California MUTCD 2014.

### **Intersection Collision Data**

Accidents within the study area were queried from the Traffic Accident Surveillance and Analysis System (TASAS), a Caltrans program used to track vehicle accidents, for a three-year period from April 1, 2007, to March 31, 2010.

### 3-Year Accident Data (April 1, 2007 to March 31, 2010)

| Location                                   | Number of Accidents |       |        |     | Accident Rates            |         |         |                           |     |        |
|--|---------------------|-------|--------|-----|---------------------------|---------|---------|---------------------------|-----|--------|
|  | Total*              | Fatal | Injury | F+I | Actual                    |         |         | Average                   |     |        |
|  |                     |       |        |     | Per million vehicle miles |         |         | per million vehicle miles |     |        |
|  |                     |       |        |     | Fatal                     | F +I    | Total * | Fatal                     | F+I | Total* |
| 03-YOL-16<br>PM 28.266<br>& Co. Rd.<br>21A | 3                   | 0     | 1      | 1   | 0.000                     | .0<br>8 | .24     | 0.003                     | .07 | .16    |
| 03-YOL-16<br>PM 31.032<br>& Co. Rd.<br>89  | 7                   | 0     | 3      | 3   | 0.000                     | .1<br>9 | .44     | 0.005                     | .20 | .60    |

\*Total accidents include fatalities and injuries, plus property damage only accidents.

The three accidents at County Road 21A include two broadsides and a hit object. Four of the seven accidents at County Road 89 were rear end accidents. The other three accidents were a head-on, a sideswipe, and a hit object.

### Environmental Consequences

#### Proposed Improvements

All three locations have the proposed features of eight foot paved shoulders, a 20 foot CRZ and shoulder rumble strips.

#### Increased Shoulder Width

Shoulders increase safety by providing a stable, clear recovery area for drivers who have left the travel lane. If a driver inadvertently leaves the lane or is attempting to avoid a crash or an object in the lane ahead, a firm, stable shoulder greatly increases the chance of safe recovery. Increasing the shoulder width from 1 foot to 8 feet is projected to reduce collisions by 38 percent according to the Transportation Research Board's *Highway Safety Manual*.

## **Shoulder Rumble Strips**

According to the *Federal Highway Administration, Technical Advisory T5040.39, Revision 1*, rumble strips are designed primarily to assist distracted, drowsy, or otherwise inattentive drivers who may unintentionally drift over the edge line. For this set of drivers, the audible and vibratory warning produced by rumble strips greatly improves the opportunity for a safe recovery. Shoulder or edge line rumble strips are one of the proven countermeasures that reduce the risks of run-off-road crashes.

*National Cooperative Highway Research Program (NCHRP) Report 641* documents milled shoulder and edge rumble strips to provide statistically significant reductions in single-vehicle run-off-road injury crashes: by 10 to 24 percent on rural freeways, and 26 to 46 percent on two-lane rural roads.

## **Clear Recovery Zone (CRZ)**

The Caltrans Traffic Safety Manual states “An area clear of fixed objects adjacent to the roadway is desirable to provide a recovery zone for vehicles that have left the traveled way. Studies have indicated that on high-speed highways, a clear width of 30 feet from the edge of the traveled way permits about 80 percent of the vehicles leaving the roadway out of control to recover. Therefore, 30 feet should be considered the minimum, traversable clear recovery area for freeways and high-speed expressways. High-speed is defined as operating speeds greater than 45 mph.

On most conventional highways, a 30-foot clear zone distance may be difficult to justify for engineering, environmental or economic reasons. For these reasons, a minimum, traversable clear recovery area of 20 feet on conventional highways is advised.”

## **Location Specific Improvements**

### **Location 1**

The project proposes to flatten (increase the radius of the existing horizontal curve to meet the current Caltrans design standard for the proposed speed limit. By creating a curve with a design speed that matches the roadway speed limit, the Project will not require drivers to adjust vehicle speed in the curve, thereby reducing the potential of a driver to lose control in the curve.

Left-turn lanes are proposed for both directions on SR-16 at CR-79 to allow for safer turning movements. This improvement is expected to reduce the number of rear-end collisions at this intersection by removing stopped left turning vehicles from the through traffic lanes.



## **Location 2**

As with Location 1, the project proposes to flatten both the existing horizontal curve and a vertical curve to help the roadway alignment better meet driver expectations, thereby reducing the potential of a driver to lose control in the curve. In addition, wider shoulders and an improved CRZ will increase a drivers ability to recover.

## **Location 3**

A Traffic Analysis Report for this location was completed in December 2014 to determine appropriate intersection control at CR-21A and at CR-89.

### **State Route 16/County Road 21A**

This project proposes to change the intersection control at SR-16/CR-21A. Congestion occurs at this intersection in the PM peak hour. A roundabout was proposed and analyzed at this intersection as part of Esparto's Downtown Revitalization Plan. The roundabout analysis done by Yolo County's engineering consultant showed that a roundabout would operate acceptably at this intersection. However, due to right-of- way and access issues, the project delivery team (PDT) determined that a roundabout is not the appropriate improvement for this location. Instead, a traffic signal was analyzed and is now planned for this intersection.

A TWLTL is recommended on SR-16 from just east of CR-21A to just east of CR-86. A TWLTL can serve as a median refuge allowing drivers to cross one direction of traffic and then merge when there is an adequate gap.

### **State Route 16/County Road 89**

This project proposes to also change the intersection control at SR-16/CR-89, as congestion occurs at this intersection in the PM peak hour as well.

## **Design Option A**

Widening and adding a traffic signal at the SR-16/CR-89 intersection.

Per Section 405.9 of the Caltrans Highway Design Manual, two-lane state highways may be widened to two through lanes in each direction at an intersection when signals are installed. The additional lanes through an intersection could improve safety by allowing some of the through vehicles to pass slower moving vehicles and would reduce the lengths of queues, which would reduce the potential for rear-end collisions. Slow-moving farm vehicles and

buses are common on SR-16 in this area. Widening to two lanes in each direction at an all-way stop will realize some of the same benefits.

Intersection lighting will be included as part of the improvements at SR-16/CR-21A as well as at SR-16/CR-89.

#### **Design Option B**

A single-lane roundabout is at the SR-16/CR-89 intersection in Madison. Although as a result the peak hour delay may be slightly higher than that for a signal, there would be less delay throughout the rest of the day. Additionally, for safety projects such as this one, the FHWA supports the modern roundabout as safer than traditional signalized intersections. Overall, roundabouts operate more efficiently, often have lower life cycle costs and result in increased fuel efficiency.

The publication, Roundabouts-An Informational Guide (NCHRP 672) states, "The use of roundabouts is a proven safety strategy for improving intersection safety by eliminating or altering conflict types, reducing crash severity, and causing drivers to reduce speeds as they proceed into and through intersections. Decreased vehicle speeds will also decrease the speed differentials with other road users."

#### **Design Option C**

Widening and maintaining the existing all-way stop at the SR-16/CR-89 intersection.

Widening to two lanes in each direction at an all-way stop will realize some of the same benefits as widening to two lanes at the signalized intersection.

#### **Traffic and Transportation**

The proposed project does not add additional vehicular capacity and is not expected to appreciably affect traffic volumes. No permanent negative impacts to traffic are anticipated. The project does not contain design elements, such as additional travel lanes, which would provide additional highway capacity. However vehicles are expected to experience fewer delays since drivers turning left at country roads would no longer block traffic. The posted 55 mph speed limit on SR-16 would not be changed by the proposed project.

### **Pedestrian and Bicycle Facilities**

Within the project limits, there are no pedestrian facilities on the existing roadway. Pedestrians can be seen using a path along the south side of SR-16 in Madison between the Migrant Housing Center, which is slightly detached from the community, and the gas station/convenience store in town.

Within the project limits, SR-16 is classified as a Class III Bikeway (bike route). A Class III Bikeway is a road designated for shared use by both bicyclists and motorists. SR-16 would continue to function as a Class III bike route, and no physical improvements related to this proposed project will impact this Class III Bikeway.

Caltrans' TCCR for SR-16 encourages the development of bike lanes on the highway (Class II Bikeways) from CR-85B to I-505 within the project limits; however, that is outside the scope of this proposed safety project. The widened shoulders provided for in this project would provide more room than is currently available for bicycles. After the completion of this safety project, Caltrans and Yolo County may work together at a later time to determine if a Class II bike route is appropriate.

### **Construction Impacts**

Construction of the proposed project would temporarily affect traffic. The first stage of construction would build half of the proposed alignment while traffic stays on the existing road. The next stage would move traffic to the newly constructed portion of the road while the old roadbed is removed and the remainder of the new alignment is constructed. Staged construction would provide convenience and safety to both the traveling public and the workers who will build the project.

### **CEQA Considerations**

Less than significant impacts to traffic and transportation and bicycle facilities pursuant to CEQA are anticipated.

### **Avoidance and Minimization Measures**

With the implementation of the below avoidance and minimization measures, no adverse impacts to traffic and transportation and bicycle facilities are anticipated during construction.

The following Traffic Management Plan elements should be considered:

- Restrictions on when lanes may be closed.

- Public notices and press releases provided in local newspapers before major stage or traffic shifts.
- A Construction Zone Enhanced Enforcement Program (COZEEP) with the CHP during major construction that affects traffic, such as stage changes and traffic shifts.
- Changeable message signs to alert motorists to unusual or new conditions and any delays that develop.

### **Mitigation Measures**

- No mitigation measures are required for Traffic and Transportation/Pedestrian and Bicycle facilities.

### **VISUAL/AESTHETICS**

#### **Regulatory Setting**

CEQA establishes that it is the policy of the State to take all action necessary to provide the people of the State “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (California Public Resources Code (PRC) Section 21001(b)).

#### **Affected Environment**

A Visual Impact Assessment (VIA) was completed in April 2014. The project region is rural in character. The route winds through farms, orchards, ranches, vineyards, and passes through the towns of Madison, Esparto and Capay. The valley floor is gently sloping to flat, and is framed by rolling hills of the California inner coastal range landform.

At the town of Capay, the hills rise above the valley floor approximately 1800 feet to the northwest, and 3000 feet to the southwest. The views range from enclosed and restricted by both vegetation and landform to sweeping vistas of farmland, oak woodlands and distant hills. The orientation of the Capay Valley is from northwest to southeast and widens to approximately a mile across out to the Sacramento Valley floor.

The original plant communities include annual grasslands, Blue oak woodland, Valley foothill riparian, and Valley foothill hardwood conifer. Wet meadows and seasonal wetlands are visible from the roadway. The rolling hills are sculpted and defined by the actual hydrological systems such as swales and creeks. The average rainfall in the region is between 20 and 25 inches per year. The major water resource for the area is Cache Creek, which lies to the north and roughly parallels SR 16. Cache Creek would not be directly affected by the proposed project.

The vegetation and habitat types within the environmental study limit (ESL) include agricultural fields, row crops, orchards, annual grassland, Valley oak riparian habitat and blue oak woodland.

Blue oak woodland habitat in the study area consists primarily of blue oak (*Quercus douglasii*) with minor amounts of interior live oak (*Quercus wislizenii*) and foothill pine (*Pinus sabiana*). Poison oak shrubs (*Toxicodendron diversilobum*) and annual grasses including wild oat, soft chess, ripgut brome and hare barley occur on the forest floor.

Valley oak riparian habitat in the study area is dominated by Valley oak (*Quercus lobata*) trees. Understory species include wild grape (*Vitus californica*), wild rose (*Rosa californica*), Himalayan blackberry (*Rubus discolor*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), perennial ryegrass (*Lolium perenne*), and velvet grass (*Holcus lanatus*). Common herbaceous species that occur in the understory include miner's lettuce (*Claytonia perfoliata*), white sweetclover (*Melilotus alba*), and common monkeyflower (*Mimulus guttatus*).

The project work locations are within the valley bottom of the Capay Valley. The west end of the project site has rolling hills visible on both sides. Oak woodlands are visible on the hillsides, while the immediate foreground is a variable rural landscape. The characteristic variations include a mix of houses, barns and fences, outbuildings, rows of trees adjacent to the roads, and open views of orchards, fields and vineyards. Although the creek is adjacent to the roadway in places, it is not necessarily visible to drivers because the creek bed is very deeply incised.

The eastern end of the project site travels from the town of Capay towards I-505, from Capay to the east the long views are of the agriculture of the Sacramento Valley. A number of rural homes have views of the roadway.

## **Environmental Consequences**

This project, as proposed, would change the visual resources within and adjacent to the existing alignment for all three locations. These resources contribute to the rural character of the route. All vegetation within the project limits of the roadway alignment, shoulders, and the 20-foot CRZ on both sides of the roadway would be removed to accommodate the construction work and proposed safety zones. The CRZ includes shoulders, and provides areas for errant vehicles to regain control. For a conventional highway, the minimum desirable width for the CRZ is 20 feet. Vegetation may be removed from the CRZ to the right-of-way to accommodate utilities, maintenance vehicle pullouts, and access. The removal of the existing vegetation would affect the current visual character and interest of the roadway by moving the natural and planted vegetation further away from the roadway

edge. This would open new views to the distant hills, agricultural land, residences and business but will decrease the close roadside views of vegetation and habitat that characterizes a conventional highway.

### **Special Circumstances For Location 1**

Realignment will bring the roadway into closer proximity to existing residences in Location 1 near the intersection of SR-16 and CR-79. The existing buffer and vegetated screens between the roadway and residences will be reduced or eliminated. The new alignment would include the development of new horizontal and vertical curves. Intersections of county roads and driveways would also be realigned, moved or created. With the new alignment the headlight sweep patterns would change, new areas would be affected by an increase of light and glare.

At Location 1 (PM 20.5 to 21.3), depending on which option is used in the construction, the project may have an impact along the area of Taylor Creek where riparian trees and vegetation could be affected. Option "A" would shift the alignment north to avoid a house and Option "B" would shift the alignment south to reduce impacts to Taylor Creek. If Option "A" is incorporated into the construction phase, the impacts to the creek will need to be minimized through re-vegetation of the riparian ecosystem. Minimization measures will need to be implemented to address the visual concerns. This would cause a major, short term visual impact to the roadway, but over a few years the impacts will be reduced. If Option "B" is built the visual impacts would be less than that of Option "A", but, will still require re-vegetation efforts to restore the landscape to a more natural-looking environment.

SR-16 in all three project locations is not eligible for State Scenic Highway status.

### **CEQA Considerations**

With the implementation of the below avoidance and minimization measures, less than significant impacts with mitigation to visual/aesthetics pursuant to CEQA are anticipated.

### **Avoidance and Minimization Measures**

- The application of erosion control to all disturbed areas will be required. These areas shall be returned to their preconstruction conditions once construction is completed. The erosion control shall consist of a seed mix of grasses and forbs that are native to the area.
- If Option B (part of location 1) is built the Landscape Architecture Division will design a landscape and erosion control plan.

- Tree removal that occurs along or near residential development shall be replanted in kind with the type of trees and vegetation that has been removed. This will provide screening for residences to help reduce light and glare, and to help reestablish and maintain the rural feel of the surrounding area.
- Similar ornamental variety or native trees shall replace large trees that need to be removed due to construction activities so long as they do not interfere with roadway functions or utilities. Re-vegetation within clear recovery zones would consist of native grasses and shrubs to facilitate sight distance requirements, reduction of obstacles and erosion concerns.

### **Mitigation Measures**

- If Option “A” (part of location 1) is built Caltrans shall design and prepare a re-vegetation plan (RP) which would serve to minimize impacts. The plan shall be jointly prepared by a landscape architect and biologist. The RP would include measures to replace existing native riparian vegetation that will be removed or indirectly affected by construction of the proposed project. The RP shall include planting concepts, specifications, riparian restoration and wetland planting plans, plant species, sizes and quantities. The Caltrans biologist would take the lead on the RP with the help of Landscape Architecture staff to design a conceptual plan for the RP.

## **CULTURAL RESOURCES**

### **Regulatory Setting**

“Cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance.

Historical resources are considered under CEQA, as well as PRC Section 5024.1, which established the California Register of Historical Resources. In addition, PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places (NRHP) listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

## **Affected Environment**

An Historic Property Survey Report (HPSR) was completed in July 2014 due to the potential for cultural resources within the project area.

The Area of Potential Effects (APE) was established through consultation between the Caltrans Project Manager, Project Engineer, and the Caltrans Professionally Qualified Staff (PQS) on June 5, 2014. The APE encompasses the area within which direct or indirect impacts associated with the proposed highway project could cause alterations in the character or use of any historic property, if present.

Historical research and field surveys within a preliminary study area were conducted by consultants in May 2002. The original preliminary study area was much larger than the current project's APE.

The HPSR identified one historic-era archaeological site that is within the APE and Area of Direct Impacts (ADI) for the proposed project. Portions of this site in the ADI were previously determined non-contributing for listing to the NRHP with concurrence by the SHPO in 2005. Excavations were conducted at previously unevaluated portions of that site in 2014, with intact deposits identified approximately 12 inches below the ground surface. Subsequent to the archaeological excavations, design changes for the proposed project have removed this site from the ADI. It is also not eligible for the California Register of Historic Places.

Additionally, six previously identified cultural resources are located within the APE. The eligibility of the six sites is addressed in the Historic Resource Evaluation Report (HRER) completed in 2005. Three of the sites in the project's APE were previously found not eligible for National Register of Historic Places (NRHP) with concurrence by the SHPO in 2005, therefore precluding further cultural resources management for these resources. Portions of two additional sites within the project's ADI were determined non-contributing for listing to the NRHP with concurrence by the SHPO in 2005. It is also not eligible for the California Register of Historic Places.

## **Environmental Consequences**

Caltrans has determined that this proposed project would have no adverse effect to state-owned archaeological sites, landscapes, non-structural resources within the APE that meet National Register and/or California Historical Landmarks Register eligibility criteria and has provided notice and summary to SHPO pursuant to PRC Section §5024(f).



Caltrans PQS staff has determined that there are resources in the project area that were previously determined not to meet National Register of Historic Places or California Register of Historical Resources criteria, as outlined in CEQA Guidelines 15064.5(a), that the prior determination remains valid, and they are not historical resources for purposes of CEQA.

Caltrans PQS staff has determined that for historical resources, there would be no substantial adverse change because the impacts to historical resources within the Project Area limits would be avoided through the establishment of Environmentally Sensitive Areas (ESAs). The ESA's will be marked on the plans as areas to be avoided by the contractor.

### **CEQA Considerations**

With the implementation of the below avoidance and minimization measures, less than significant impacts to cultural resources pursuant to CEQA are anticipated.

### **Avoidance and Minimization Measures**

- The portions of the cultural sites outside the ADI would be protected against inadvertent damage during project construction through the establishment of ESA and preparation of an ESA Action Plan. The ESA Action Plan will ensure proper implementation of Section 106 Programmatic Agreement Stipulation X, and to ensure compliance with CEQA, and for state-owned historic properties, PRC Section §5024.
- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the district archaeologist so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

## **Mitigation Measures**

- No mitigation measures are required for Cultural Resources.

## **Physical Environment**

### **HYDROLOGY AND FLOODPLAIN**

#### **Regulatory Setting**

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

#### **Affected Environment**

A Floodplain Evaluation Report Summary and a Floodplain Hydraulic Study were completed in July 2014.

At Location 1, SR-16 is above the base floodplain based on the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (June 2010 FIRMs) for Yolo County, however, Taylor Creek would need to be realigned and stabilized with Rock Slope Protection (RSP) for both Option A and B which would constitute a longitudinal encroachment of FEMA FIRM Zone A.

At Location 2, there are no impacts to floodplains.

At Location 3, SR-16 is currently below the elevation of the 100-year floodplain between the town of Esparto and the I-505 interchange. The road routinely floods during storms. SR-16 in this location is primarily a longitudinal encroachment of the base floodplain FEMA FIRM Zone A, AE, AO and X. SR-16 is considered a transverse encroachment of the South Fork Willow Creek at Bridge Number (Br. No.) 22-0093 (PM 29.42).

### **Environmental Consequences**

The proposed project would encroach on the floodplain at the following locations:

- Taylor Creek, PM 20.56-20.64 and PM 20.73 -20.90-Longitudinal Encroachment
- Taylor Creek and County Road 79, PM 20.86- Longitudinal Encroachment
- SR-16 near the South Fork of Willow Slough, PM 28.20-28.27 and PM 28.27-31.82 – Transverse Encroachment

The profile of SR-16 would not be significantly altered except to standardize the vertical curve at the South Fork Willow Creek at Bridge No. 22-0093. This might result in a modest increase in the profile of SR-16 near the existing bridge. The primary means of flooding along the south side of SR-16 in this vicinity is from overtopping of the South Fork Willow Creek which flows generally west to east, parallel to the highway. The primary means of flooding on the north side of SR-16 in this vicinity is from overtopping of Lamb Valley Slough and South Fork Willow Slough north which flows generally west to east parallel to the highway. As flood levels increase during a 100-year flood event, the water surface would rise above SR-16 east of the vertical curve and backup to the west without creating a substantial impact to the water surface elevation north or south of SR-16.

At Location 1 for Option A, the existing 15-foot Corrugated Structural Steel Plate Pipe (CSSPP) under CR-79 would be removed and a new 15-foot CSSPP or equivalent will be placed under CR-79 along the revised creek alignment which will constitute a longitudinal encroachment of FEMA FIRM Zone A.

At Location 2, there are no impacts to floodplains.

At Location 3, the embankment of Taylor Creek will need to be stabilized with RSP.

The Floodplain Evaluation Report Summary and Technical Information for Location Hydraulic Study forms prepared for this project concluded that the project would not constitute a significant floodplain encroachment and would pose no additional risk to adjacent properties.

## **CEQA Considerations**

Less than significant impacts to hydrology and floodplains pursuant to CEQA are anticipated.

## **Avoidance, Minimization, and/or Mitigation Measures**

- No Avoidance, Minimization and/or Mitigation measures are required for Hydrology and Floodplain.

## **WATER QUALITY AND STORM WATER RUNOFF**

### **Regulatory Setting**

#### **Federal Requirements: Clean Water Act**

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source<sup>2</sup> unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

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<sup>2</sup> A point source is any discrete conveyance such as a pipe or a man-made ditch.

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the USACE’s Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency’s Section 404 (b)(1) Guidelines (40 CFR Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent<sup>3</sup> standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

### **State Requirements: Porter-Cologne Water Quality Control Act**

California’s Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just

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<sup>3</sup> The U.S. EPA defines “effluent” as “wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.”

waters of the U.S., such as groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of “waste” as defined and this definition is broader than the CWA definition of “pollutant”. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### **State Water Resources Control Board and Regional Water Quality Control Boards**

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

### **National Pollution Discharge Elimination System (NPDES) Program**

#### **Municipal Separate Storm Sewer Systems (MS4)**

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). The U.S. EPA defines an MS4 as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water.” The SWRCB has identified Caltrans as an owner/operator of an MS4 pursuant to federal regulations. The Caltrans MS4 permit covers all Caltrans rights-of-

way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans MS4 Permit, Permit was adopted on September 19, 2012, and became effective on July 1, 2013. (Order No. 2012-011-DWQ.) The permit has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) BMPs, to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Stormwater Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

#### Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted by the SWRCB on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the Construction General Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water

pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with Caltrans Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

#### Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before USACE issues a 404 permit.

In some cases the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

#### **Affected Environment**

A Water Quality Assessment (WQA) was completed in July 2013. Yolo County has a Mediterranean climate characterized by hot, dry summers and temperate, wet winters. However, the county receives a marine air influence from the Delta region to the south that moderates the temperature extremes of the Central Valley. During the summer months (June–August), average daily high temperatures are in the mid-90s Fahrenheit (°F) and average daily low temperatures are in the mid-50s. During the winter months (December–February), average high temperatures are in the 50s°F and average lows are 38–40°F. Virtually all precipitation falls as rain, between November and April in most years. Annual rainfall typically ranges from 16 to 22 inches, and the average annual air temperature is 60–



62°F. The frost-free season is 230–280 days throughout the year (Yolo County Planning Department 2005).

The proposed project lies within two Undefined Hydrologic Sub Area (HSA), 511.30 & 511.20 which are in Lower Putah Creek Hydrologic Area (HA) of the Valley Putah-Cache Hydrologic Unit (HU) in the Sacramento River Hydrologic Region (HR). The average annual rainfall is about 19.4 inches. Cache Creek, Taylor Creek, Willow Creek, Salt Creek, Saltroy Creek, Mass Creek, Winters Creek and Willow Slough are water bodies within the project limits. The water bodies mentioned are seasonal and, with the exception of Cache Creek, are not on the state's 303(d) list of impaired water bodies.

The drainage in the project from post mile PM 20.5 to approximately PM 26.3 is carried to Cache Creek from Taylor Creek, Mass Creek, Salt Creek, Willows Creek and Winters Creek via sheet flow onto agricultural lands, or direct flow into road side ditches and culverts. Cache Creek is on the 303d list of impaired waterbodies because of mercury. Drainage from PM 26.3 to the end of the project is carried into agricultural lands, roadside ditches, and Willow and Cottonwood sloughs.

The Cache Creek watershed and, to a significantly greater extent, the Harley Gulch and Sulphur Creek watersheds are naturally enriched in mercury. The lowest concentration of mercury in soil in the watershed, as observed in areas distant from mines or springs, is in the range 0.1-0.2 mg/kg, dry weight. Regional Water Quality Control Board staff considers 0.2 mg/ kg to be the regional background mercury concentration (CalEPA 2005). The Basin Plan also defines areas of elevated levels of total mercury, "hot spots," as areas with a concentration of 0.4 mg/ kg or greater in the fraction of sample that passes a 0.063 mm screen (silt and clay fractions). To control erosion of soils containing elevated levels of mercury, these areas must first be identified for their mercury content and erosion potential.

The receiving water bodies from the storm water runoff from this project area are Cache Creek, Taylor Creek, Willow Creek, Salt Creek, Mass Creek, Winters Creek, Willow Slough and Cottonwood Slough. The Construction General Permit (GCP) requires Caltrans to implement BMPs to control erosion on mercury-enriched soils (0.4 mg/kg) in the upper watershed of Cache Creek. The following numeric allocations for acceptable annual loads apply in the these reaches: Cache Creek (Clear Lake to North Fork confluence) 11 grams/year; North Fork Cache Creek 12.4 grams/year; Harley Gulch to Camp Haswell 0.04 grams/year; Davis Creek 0.7 grams/year; Bear Creek at Hwy 20 3 grams/year; within channel production and ungauged tributaries 32 grams/year; and finally Cache Creek at Yolo, California, 39 grams/year; which is the reach adjacent to this project. Central Valley Regional Water Quality Control Board (CVRWQCB) recommends aggressive and redundant erosion and sediment control for this area to protect beneficial uses of water bodies.

Caltrans in 2006 entered into a contract to develop a sampling program to identify locations with elevated levels of total mercury within the highway rights-of-way, including SR-16 from the Colusa County line to County Road 95 west of Woodland PM 0.0 to 37.5 (37.5 miles).

Sampling activities were conducted from June 24, 2006 through July 13, 2006. A total of 195 samples and 20 duplicate samples were collected.

The study located elevated levels of total mercury in seven quarter-mile segments along SR-16. Nearly all of the high concentration samples were very close to stream banks. Locations or segments of potential elevated mercury within the project limits include:

| <b>Start PM</b>    | <b>End PM</b> | <b>Result<br/>(mm<br/>Hg/kg<br/>soil)</b> | <b>Notes</b>                                |
|--------------------|---------------|---|---|
| Loc 1<br>20.5/21.3 | 20.75         | 0.41                                      | Near Water; Bare soil, some erosion present |
| Loc 3<br>28.2/31.6 | 28.25         | 0.67                                      | Near Water; Bare soil, some erosion present |

## **Environmental Consequences**

### **Potential Impact on Water Quality Standards**

The proposed project would be adding approximately 32 acres of net new impervious surface by adding 8-foot shoulders to each side of the roadway. Impervious surfaces are mainly artificial structures, such as pavements, roads, sidewalks, driveways and parking lots that are covered by impenetrable materials such as asphalt, concrete, and brick. Soils compacted by development are also highly impervious. Additional impervious surfaces result in an increase in stormwater runoff and pollutants in surrounding areas.

This additional impervious area should be relatively insignificant considering the large watershed areas that contributes to the individual creeks. Ultimately, the storm water quality may be improved by the proposed project with drainage improvements and implementation of permanent treatment BMPs.

### **Potential for Creation of Substantial Additional Sources of Polluted Runoff**

The proposed project is not expected to increase the traffic volumes in the project area and the impact of additional aerielly deposited particles on the receiving water quality is not expected to be significant. With the proper implementation of both temporary and permanent BMPs for stormwater treatment and control, the project as planned will not result in the

creation of a substantial source of additional polluted runoff. As mentioned in previous sections, the proposed project design would avoid/reduce impacts to receiving waters. Alignments were moved away from longitudinal creeks along the project to minimize impacts to steep slopes, wetlands, and areas with erosive or unstable soil conditions. Alignments would be moved away from areas with steep slopes to lessen impacts and areas with previously erosive or unstable soil conditions. Bioswales, detention basins, and rock slope protection, would be implemented in this project design with the same intent, and would help to increase infiltration and reduce scouring and erosion along the length of this project.

### **CEQA Considerations**

The project as designed, and with the implementation of permanent and temporary BMPs, is expected to have less than significant impacts to water quality and storm water runoff pursuant to CEQA.

### **Avoidance and Minimization Measures**

To comply with the Statewide NPDES Storm Water Permit, Caltrans developed a statewide SWMP. The SWMP describes the minimum procedures and practices that Caltrans uses to reduce the pollutants it discharges into storm drainage systems owned or operated by Caltrans. It outlines procedures and responsibilities for protecting water quality at Caltrans facilities, including the selection and implementation of BMPs. This selection and implementation of both temporary construction and permanent treatment BMPs is conducted through the completion of a Stormwater Data Report (SWDR), which is completed during the various stages of the design process by the project engineer. The practices outlined in the SWMP and Statewide Storm Water Practice Guidelines ensure that certain minimum design pollution prevention features are incorporated into projects to maintain or improve water quality. The key elements are as follows:

- Prevent Downstream Erosion – design of drainage facilities to avoid causing or contributing to downstream erosion. Drainage outfalls, when appropriate, will discharge to suitable control measures.
- Stabilize Disturbed Soil Areas – design will incorporate stabilization of disturbed areas (when appropriate) with seeding, vegetative, or other types of cover.
- Maximize Existing Vegetative Surfaces – design will limit footprints of cuts and fills to minimize removal of existing vegetation.
- This project incorporates treatment BMPs to the maximum extent practicable with an emphasis on biofiltration swales and detention basins.

- The contractor will be responsible for implementing stormwater BMPs pursuant to Construction General Permit (CGP) and the SWPPP required by the permit to ensure that erosion and run-off does not contribute to additional pollutants in surface water bodies in the vicinity of this project. Implementing BMPs will minimize soil transportation during construction. Redundant placement of BMPs in areas that are tributaries to Cache Creek, especially at creek crossings, or in areas with elevated levels of mercury will provide additional protection.
- No soil disturbing work will be performed during the wet season (October 15<sup>th</sup> – April 15<sup>th</sup>). This will reduce the likelihood of discharges from the site.
- This will be a multi-year project and it will be necessary to ensure that BMPs have been fully implemented during the wet season to stabilize slopes and prevent erosion, especially in the vicinity of surface water bodies.
- Clearing and grubbing (digging up roots and stumps) will be done in the dry months of the year (April 15<sup>th</sup> – October 15<sup>th</sup>) to reduce the likelihood of erosion occurring during and immediately following construction of the project. Revegetation of disturbed surfaces will be in accordance with plans developed by a Caltrans Landscape Architect. Preservation of existing vegetation to provide erosion and sediment control benefits has been maximized on this project. Contract plans will delineate ESAs to help preserve existing vegetation.
- The placement of Rock Slope Protection (RSP) to currently unstable slopes, as well as the addition of detention basins, swales, and other stormwater design improvements are being implemented into this project to ultimately improve the water quality of the creeks within the project limits.
- The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit No. 000003 (Order No. 2012-0011-DWQ), issued by the SWRCB.
- The contractor is required to prepare a SWPPP containing effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls. It is generally accepted that practices that perform well by themselves can be complemented by other practices to raise the collective level of erosion control effectiveness and sediment retention.
- This project will have at least 1 acre of Disturbed Soil Area (DSA) and is subject to the Construction General Permit. A Notification of Construction (NOC) will be

submitted to the CVRWQCB, Sacramento Office at least 30 days prior to construction.

- Standard Special Provision (SSP) 07-345 is a set of specifications used for projects that disturb more than one acre of soil. SSP 07-345 would be included in the construction specifications for this project and would clearly outline the Contractor's responsibilities with respect to preparation and implementation of the SWPPP.
- In accordance with the MS4 NPDES general permit as directed by Caltrans SWMP and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project. This evaluation has been conducted through the completion of a SWDR.
- This work may require the dewatering of irrigation ditches. Irrigation water is a conditionally exempted discharge under the Caltrans permit and is not prohibited if identified as not being sources of pollutants to receiving waters or if appropriate control measures are developed and implemented under the SWMP to minimize the adverse impacts of such sources. The project will coordinate with CVRWQCB through the Caltrans NPDES coordinator to ensure any dewatering performed during this project conforms to these (NPDES permit) provisions.
- The project will utilize and enhance existing natural biostrips and bioswales whenever possible. Biostrips will be incorporated into the roadway design throughout the project limits wherever gentle slopes allow. Bioswales will be incorporated into ditch design wherever the longitudinal slope, soil conditions, proper shape, and vegetation can be obtained.
- Caltrans will comply with all conditions listed in the 401 Certification.

### **Mitigation Measures**

- No mitigation measures are required for Water Quality and Storm Water Runoff.

## HAZARDOUS WASTE/MATERIALS

### Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Resource Conservation and Recovery Act of 1976 (RCRA). The purpose of CERCLA, often referred to as “Superfund,” is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires clean up of wastes that are below hazardous waste concentrations but

could impact ground and surface water quality. California regulations that address waste management and prevention and clean up contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

### **Affected Environment**

An updated Initial Site Assessment (ISA) was prepared by Caltrans North Region Environmental Engineering staff in January 2014. In addition, a Site Investigation (SI) was prepared in June 2010. The ISA was based on reviews of the project plans, mapping and previous initial site assessments prepared in November 2007 and in January 2009.

### **Environmental Consequences**

Caltrans determined from the SI that hazardous levels of lead and chromium are known to exist in the yellow color traffic stripes. Since these traffic stripes will be cold planned along with the roadway, the levels of lead and chromium will become non-hazardous.

These grindings (which consist of the roadway material and the yellow color traffic stripes) shall be removed and disposed of in accordance with Standard Special Provision 15-1.03B (Residue Containing High Lead Concentration Paints) which requires a Lead Compliance Plan (LCP).

Non-hazardous levels of lead are known to exist in the white traffic striping. As such, these grindings shall be removed and disposed of in accordance with Standard Special Provision (SSP) 15-1.03B (Residue Containing High Lead Concentration Paints) which requires a Lead Compliance Plan (LCP).

Lead-contaminated soils may exist within and near Caltrans R/W due to the historical use of leaded gasoline, leaded airline fuels, and waste incineration.

### **CEQA Considerations**

Less than significant impacts from hazardous waste/materials pursuant to CEQA are anticipated with the avoidance and minimization measures.

## Avoidance and Minimization Measures

- Any R/W that is going to be acquired would be tested for potential soil contamination prior to acquisition. Soils with non-hazardous levels of ADL may be reused within the project limits. Soils with hazardous levels of ADL would be disposed of at an appropriate landfill.
- SSP 15-1.03B regarding the removal of white and yellow thermoplastic paint striping is required.

## Mitigation Measures

- No mitigation measures are required for Hazardous Waste/Materials.

## BIOLOGICAL ENVIRONMENT

### NATURAL COMMUNITIES

#### Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

#### Affected Environment

A Natural Environmental Study (NES) was completed in September 2014. Vegetation communities within the study area were classified based on plant community descriptions provided in “A Guide to Wildlife Habitats of California” (Mayer and Laudenslayer, eds, 1988), “A Manual of California Vegetation” (Sawyer and Keeler-Wolf, 1995), and “Preliminary Descriptions of the Terrestrial Natural Communities of California” (Holland, 1986).

#### Annual Grassland Habitat

Annual grassland habitat occurs on the flat plains and rolling foothills of the project area. The grasslands are dominated by introduced annual grasses, including wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), and hare barley (*Hordeum murinum* ssp. *leporinum*).

Annual grassland occurs at all three proposed work areas. Due to the grassland occurring between the roadway and either development or active farmland it provides very limited



habitat value. There may be the presence of common wildlife but based on the findings during field surveys the area has low habitat value.

#### Valley Oak Riparian Habitat

Valley oak riparian habitat in the study area is dominated by valley oak (*Quercus lobata*) trees. Understory species include wild grape (*Vitis californica*), wild rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), perennial ryegrass (*Lolium perenne*), and velvet grass (*Holcus lanatus*). Common herbaceous species that occur in the understory include miner's lettuce (*Claytonia perfoliata*), white sweetclover (*Melilotus alba*), and common monkeyflower (*Mimulus guttatus*).

Valley oak riparian habitat occurs in areas with relatively shallow water tables along natural watercourses. Valley oaks in these forests grow in relatively dense stands, forming a well-developed overstory canopy. The valley oak riparian habitat has one of the most complex forest structures of any forest type in California. Valley oaks grow in a complex association of deciduous trees such as box elder, Oregon ash, and black walnut. A dense shrub layer of California blackberry, willow, and wild rose forms the lowest canopy level. Climbing vines of wild grape climb occur across all of the canopy layers [Source: Yolo County Oak Woodland Conservation and Enhancement Plan (2007)].

Wildlife species commonly associated with valley oak riparian habitat includes western toad (*Bufo boreas*), pacific chorus frog (*Pseudacris regilla*), western aquatic garter snake (*Thamnophis couchi*), red-shoulder hawk (*Buteo lineatus*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*).

Location 1 has 3.66 acres (76 oaks) of valley oak riparian habitat along Taylor Creek within the ESL.

At Location 2, there is Valley oak riparian habitat adjacent to the environmental study limit (ESL) but not within the potential area of affect.

Location 3 has no Valley oak riparian habitat within the ESL.

### **Environmental Consequences**

#### Annual Grassland

Annual grassland will be temporarily and permanently impacted at all three proposed work locations. Based on the biological evaluation, these areas provide very limited habitat value.

### Valley Oak Riparian Habitat

Valley Oak Riparian Habitat is limited in occurrence to Location 1. Disturbance in this area would include the clearing of vegetation for temporary access and construction; preparation, grading and construction of temporary access roads and staging areas, and their subsequent extensive use by heavy equipment and trucks; falsework construction; and soil stockpiling.

Permanent impacts may occur as a result of roadway construction and improvements. The maximum extent of valley oak woodland removal is 3.66 acres or 76 oak trees. Additional trees/shrubs will potentially be removed at Location 1 (Taylor Creek). These include the following: English walnut (*Juglans regia*) (approx. 47 trees), Western redbud (*Cercis occidentalis*) (9), interior live oak (25), willow sp. (13), California buckeye (*Aesculus californica*) (8), toyon (*Heteromeles arbutifolia*) (4), California rose (3), cottonwood (*Populus deltoides*) (21), blue elderberry (15), California grape (6), mugwort (*Artemisia vulgaris*) (4), milkweed (*Asclepias* sp.) (12), Dutchmen's pipe (*Aristolochia* sp.) (2), gray pine (*Pinus sabiniana*) (6).

### **CEQA Considerations**

Less than significant impacts with mitigation to valley oak riparian habitat pursuant to CEQA are anticipated with implementation of the following avoidance, minimization and/or mitigation measures.

### **Avoidance / Minimization Measures**

- Areas of Valley oak riparian habitat within the project area that are not directly affected would be designated as ESAs on the project plans and in the project avoidance specifications. The boundaries of the ESA would be clearly marked in the field by the installation of a temporary fence. ESAs would be implemented as a first order of work and will remain in place until all construction activities are complete.
- Removal of native vegetation would be confined to the minimal area necessary to facilitate construction activities.

### **Mitigation Measures**

- Mitigation to restore Valley oak riparian habitat will be performed as identified in the Lake and Streambed Alteration Agreement in coordination with the California Department of Fish and Wildlife to compensate for the loss of Valley oak riparian habitat, regulated under sections 1600-1616 of the Fish and Game Code.

- Upon completion of project construction, the loss of 76 valley oak trees at Taylor Creek would be mitigated on-site within Caltrans right-of-way. If planting cannot be accomplished on-site due to placement of Rock Slope Protection (RSP)/armouring along banks in stream area, or if there is a general lack of suitable planting area, offsite mitigation options would be pursued.
- Disturbed areas will be re-contoured to the natural grade and re-vegetated with Valley oak seedlings and other native species appropriate for the site conditions.

## **WETLANDS AND OTHER WATERS**

### **Regulatory Setting**

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 USC 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the USACE with oversight by the U.S. EPA.

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with the U.S. EPA's Section 404(b)(1) Guidelines (40CFR

Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a LEDPA to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency, such as the FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for additional details.

## Affected Environment

An NES and a Wetland Delineation were completed in September 2014. All potentially jurisdictional wetlands, Waters of the U.S. and Waters of the State, were identified and mapped according to provisions of sections 401 and 404 of the CWA and sections 1600-1616 of the California Fish and Wildlife Code.

### Wetlands

One potentially jurisdictional wetland was identified within the ESL, which occurs at Location 3, South Fork Willow Slough, near Oakdale Ranch Lane on the northside of the highway. The area within the ESL is approximately 0.04 acres. This wetland occurs on the channel banks of South Fork Willow Slough. This slough carries agricultural water which it receives from Winters Canal (outside of project limits) and supports seasonal flows through agricultural fields. The slough also conveys irrigation runoff from adjacent farmlands and receives stormwater from agricultural ditches.

Vegetation in this wetland area consists of sandbar willow (*Salix exigua*), broad-leaved cattail (*Typha latifolia*), willow weed (*Polygonum lapathifolium*), rusty flatsedge (*Cyperus odoratus*), and cocklebur (*Xanthium strumarium*). Adjacent uplands vegetation includes milk thistle (*Silybum marianum*), yellow star thistle (*Centaurea solstitialis*), wild radish (*Raphanus sativas*), and black mustard (*Brassica nigra*).

There are five potentially non-jurisdictional wetlands within Location 3. These are man-made agricultural ditches created in upland areas that carry irrigation water to crops, and contain wetland characteristics because they serve to convey water from one place to another. The total acreage is 1.25 acres.

### Other Waters

Surface water systems in the project area consist of several ephemeral or intermittent tributaries to Cache Creek.

Taylor Creek is considered other waters as it does not meet the criteria of wetlands. There is approximately 0.71 acre of waters associated with Taylor Creek within the ESL. Taylor creek does have Valley oak riparian habitat associated with its banks and high flow areas. The creek itself has limited habitat value and a lack of fish species because it is an ephemeral stream that does not provide appropriate aquatic resources.

The other water feature located at South Fork Willow Slough was historically a natural creek that has been channelized to convey precipitation and groundwater during the rainy season and irrigation flows during the growing season.

## **Environmental Consequences**

There are no wetland features in Locations 1 or 2.

Within Location 3, construction of the proposed project would permanently impact approximately 0.04 acre of potentially jurisdictional wetlands in South Fork Willow Slough and approximately 1.25 acres of potentially non-jurisdictional wetlands that are Waters of the State in five agricultural ditch locations. There will be temporary impacts to approximately 0.28 acre of potentially jurisdictional wetlands. Temporary impacts would occur along the banks of the previously mentioned agricultural ditches as these ditches are being replaced in-kind immediately adjacent to their current locations.

### **Other Waters**

Temporary impacts to approximately 0.28 acres of potentially jurisdictional wetlands, and temporary disturbance to approximately 2.75 acres of jurisdictional other waters of the U.S. would occur.

### **CEQA Considerations**

Less than significant impacts with mitigation to wetlands and other waters pursuant to CEQA are anticipated. Because the impacts to wetlands and other waters are less than significant, no mitigation measures are required under CEQA as these features are low in function and value properties, and the minimal amount of impacts to these wetlands and waters do not degrade the quality of the existing environment, reduce habitat for fish or wildlife populations, or cause species to drop below a self-sustaining level. However, mitigation is required under the Section 404 USACE permit to compensate for the loss of wetlands and other waters of the U.S.

## **Avoidance, Minimization, and/or Mitigation Measures**

### **Avoidance and Minimization Measures**

- Where working areas encroach on live or dry streams, or wetlands, RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems would be constructed and maintained between working areas and streams and wetlands. During construction of the barriers, discharge of sediment into streams would be held to a minimum. Discharge would be contained through the use of RWQCB-approved measures to keep sediment from entering protected waters.

- Oily or greasy substances originating from the Contractor's operations would not be allowed to enter or be placed where they will later enter tributary waters.
- Asphalt concrete would not be allowed to enter tributary waters.
- Wetlands, other waters of the U.S., and waters of the state would be delineated as ESAs on the project plans and in the project specifications. The boundaries of the ESA would be clearly marked in the field by the installation of a temporary fence. ESAs would be implemented as a first order of work and would remain in place until all construction activities are complete.

### **Mitigation Measures**

- If necessary, mitigation for jurisdictional wetlands and other waters of the U.S. would be performed to achieve no net loss of the functions and values within the study area in accordance with the USACE Habitat Mitigation and Monitoring Proposal Guidelines (1991) and the Guidelines for Monitoring Riparian Mitigation (1994).
- The proposed project would permanently impact approximately 0.04 acre of potentially jurisdictional wetlands which would be mitigated on-site at a 1:1 ratio by creating wetlands as part of the pending consultation with USACE. The proposed project would also have indirect impacts to approximately 0.28 acre of potentially jurisdictional wetlands of the US, which would be mitigated on-site at a 1:1 ratio by restoring wetlands as part of the pending consultation with USACE.
- The proposed project would permanently impact approximately 0.98 acre of other waters of the U.S., and approximately 1.43 acres of waters of the State in Taylor Creek and a portion of South Fork Willow Slough, which would be mitigated on-site at a 1:1 ratio by creating vegetated buffers along the other impacted waterways in the study area. Temporary disturbance to 2.75 acres of jurisdictional other waters of the U.S. and waters of the State would also occur and those impacts would be mitigated on-site at a 1:1 ratio by restoring vegetated buffers along disturbed waterways.

## **PLANT SPECIES**

### **Regulatory Setting**

The USFWS and CDFW have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 USC, Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Wildlife Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Wildlife Code, Section 1900-1913, and CEQA, PRC, Sections 2100-21177.

### **Affected Environment**

An NES was completed in September 2014. In order to comply with the provisions of various state environmental statutes and executive orders, the study area or ESA was field reviewed to 1) identify habitat types; 2) identify factors indicating the potential for special status plant species; 3) identify special status plant species present; and 4) identify potential impacts resulting from the proposed project.

The following information was studied as part of the environmental review process for special status plant species:

- California Natural Diversity Database (CNDDB) Records
- CDFW BIOS Database
- California Native Plant Society (CNPS) Database



Field surveys were conducted by Caltrans biologists on December 14, 2012, and May 3, August 23, and November 19, 2013. The most current USFWS species list for the proposed project was obtained on September 22, 2014.

### **Environmental Consequences**

Neither the biological databases nor the field study reports indicate that any special status plant species are present within the project. Agricultural fields are the most abundant cover type, and occur within the ESL at all three project locations. Various crops such as grain and alfalfa are rotated throughout the year. Croplands are generally associated with orchards, vineyards and rural residential residential areas. Pastures are interspersed with adjacent cropland and orchards and consist of perennial grasses and legumes planted on flat and gently rolling terrain for livestock.

The proposed project would have no effect on any special status plant species.

### **CEQA Considerations**

No impacts to special status plants pursuant to CEQA are anticipated.

### **Avoidance, Minimization, and/or Mitigation Measures**

- There are no avoidance, minimization and/or mitigation measures proposed for plant species.

## **ANIMAL SPECIES**

### **Regulatory Setting**

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act

- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

### **Affected Environment**

An NES was completed in September 2014. In order to comply with the provisions of various State environmental statutes and executive orders, the ESA was field reviewed to 1) identify factors indicating the potential for special status animal species; 2) identify special status animal species present; and 3) identify potential impacts resulting from the proposed project.

The following information was analyzed as part of the environmental review process for special status animal species:

- California Natural Diversity Database (CNDDDB) Records
- CDFW BIOS Database

Field surveys were conducted by Caltrans biologists on December 14, 2012, and May 3, August 23, and November 19, 2013. The most current USFWS species list for the proposed project was obtained on September 22, 2014.

### Western Red Bat

Western red bats (*Lasiurus blossevillei*) are one species of several in the genus *Lasiurus* that are commonly referred to as "tree bats" because they roost only in tree foliage. The western red bat is also known as the desert red bat. This species is a typical tree bat, which is closely associated with cottonwoods in riparian areas at elevations below 6,500 feet. Especially favored roosts are found where leaves form a dense canopy above and branches do not obstruct the bats' flyway below. Western red bats are also known to roost in orchards, especially in the Sacramento Valley of California. Despite their bright amber color, these bats are actually rather camouflaged, resembling dead leaves when they curl up in their furry tail membranes to sleep.

Bats typically feed along forest edges, in small clearings, or around street-lights where they prefer moths. It is not known exactly where desert red bats hibernate, though they may

burrow into leaf litter or dense grass like their eastern counterparts, and they do move to milder coastal areas in the Pacific Northwest. Although largely undocumented, desert red bats appear to have declined markedly in the West due to the loss of lowland riparian forests (Bat Conservation International, 2013). These bats do have the potential to occur in the project area.

#### Structure Nesting/Roosting Species/Bats

Existing bridges and box culverts within the study area provide suitable habitat for structure nesting/roosting species such as migratory swallows and some species of bats such as the Mexican free tailed (*Tadarida brasiliensis*), little brown (*Myotis lucifugus*), pallid (*Antrozous pallidus*), and big brown (*Eptesicus fuscus*).

The cliff swallow is a fairly common migratory bird species that forms large nesting colonies on box culverts and bridges. When access to suitable habitat is prevented at one colony, cliff swallows leave the area and join nesting colonies elsewhere. Suitable habitat for cliff swallows is widely available in and around the project area, and there are numerous nesting colonies in the Central Valley.

This species has been observed at both of the South Fork Willow Slough Bridges, one within Location 3, and the other just east of the project limits. Other bridges along this section of SR-16 that provide appropriate nesting habitat for this species include bridges over Salt Creek, Saltroy Creek, and Willow Creek; however, these are not within the project limits.

#### Migratory Birds-Vegetation Nesting Species

Migratory birds including the black phoebe were detected in the project area. Other migratory birds have the potential to nest in the project area.

#### Burrowing Owl

The burrowing owl is a California species of special concern. Burrowing owls prefer open, dry grassland and deserts. The nesting season is between February 1 and August 31. Nests are typically located in abandoned rodent burrows, particularly California ground squirrel (*Spermophilus beecheyi*), which they modify each year. Burrowing owls forage in open grassland areas adjacent to nest sites. The species have also been documented in open areas near human habitation, especially airports and golf courses. The Central Valley and surrounding foothill regions of California provide year-round habitat for burrowing owl.

Annual grassland habitat, agricultural fields (cropland), and orchard-vineyard habitat within/adjacent to the project area could provide potential suitable foraging and nesting

habitat for burrowing owls. While the project limits could provide potential habitat for this species, the amount and quality of habitat is not high.

## **Environmental Consequences**

### Western Red Bat

No western red bats were observed within the study area during surveys. As this species has numerous foraging and breeding resources immediately adjacent to project limits, no further surveys were conducted.

### Migratory Birds-Vegetation Nesting Species

While vegetation-nesting species have the potential to occur within the project area, the proposed project is not expected to have an adverse effect on these species with the implementation of the avoidance and minimization measures.

### Structure Nesting/Roosting Species/Bats

Existing bridges and box culverts within the study area provide suitable habitat for structure nesting/roosting species such as migratory swallows and some species of bats such as the Mexican free-tailed (*Tadarida brasiliensis*), little brown (*Myotis lucifugus*), pallid (*Antrozous pallidus*), and big brown (*Eptesicus fuscus*).

The cliff swallow is a fairly common migratory bird species that forms large nesting colonies on box culverts and bridges. When access to suitable habitat is prevented at one colony, cliff swallows leave the area and join nesting colonies elsewhere. Suitable habitat for cliff swallows is widely available in and around the project area, and there are numerous nesting colonies in the Central Valley. This species has been observed at both of the South Fork Willow Slough Bridges. One is located within Location 3, and the other bridge is located just outside of project limits to the east. Other bridges along this section of SR 16, but not within project limits, that provide appropriate nesting habitat for this species include Salt Creek Bridge, Saltroy Creek Bridge, and Willow Creek Bridge.

### Burrowing Owl

Burrowing owls were not detected in the study area during field surveys, and the CNDDDB (2014) search provided no records for burrowing owls occurring in the study area. While potential suitable habitat could be present within project limits, the habitat available would be a minimal amount, and not of high quality. It would be unlikely that this species would occur within project limits.

## **CEQA Considerations**

Less than significant impacts to western red bats pursuant to CEQA are anticipated.

Less than significant impacts to migratory birds-vegetation nesting species pursuant to CEQA are anticipated.

Less than significant impacts to tri-colored blackbirds pursuant to CEQA are anticipated.

Less than significant impacts to structure nesting/roosting migratory birds and bats pursuant to CEQA are anticipated.

Less than significant impacts to borrowing owls pursuant to CEQA are anticipated.

## **Avoidance and Minimization Measures**

### Structure Nesting/Roosting Species/Bats

- To avoid potential impacts to nesting swallows or roosting bats, exclusionary devices would be installed where feasible to prevent nesting or roosting on box culverts and bridges within the project area. The installation of the exclusionary devices would occur during the fall or winter after fledging and before initiation of breeding activities (between September 1<sup>st</sup> and February 14<sup>th</sup>). A biological monitor would periodically inspect the exclusionary devices to ensure effectiveness.
- Nest removal is another method of preventing structure nesting/roosting species. CDFW considers February 15 to September 1 to be the swallow nesting season. Old nests or nests under construction would be washed down with water or knocked down with a pole. Swallows are strongly attracted to old nests or to the remnants of deteriorated nests, so all traces of mud would need to be removed. Because cliff swallows persistently rebuild nests for most of the breeding season, the nest removal method would require many consecutive days to prevent them from nesting using this method.

### Migratory Birds-Vegetation Nesting Species

- Removal of native vegetation would be confined to the minimal area necessary to facilitate construction activities.
- Vegetation removal on the project site will be conducted between September 1<sup>st</sup> and February 14<sup>th</sup>, outside of the nesting season (generally) for most migratory bird species in the project area. If vegetation removal must take place outside of this

period, a qualified biologist would conduct pre-construction surveys for active bird nests within 0.25 mile of all construction activities. These surveys would be conducted no less than 14 days and no more than 30 days before the beginning of construction. If construction activities are delayed or suspended for more than 30 days after the pre-construction survey, the areas would be resurveyed. If no active bird nests are found, no further measures are necessary. If active bird nests are identified, construction activities within 500 feet of these areas would be postponed until USFWS and/or CDFW have been consulted, or after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. No known active nests would be disturbed without permit or other authorization from the USFWS and/or the CDFW.

#### Structure Nesting/Roosting Species/Bats

- To avoid potential impacts to nesting swallows or roosting bats, exclusionary devices would be installed where feasible to prevent nesting or roosting on box culverts and bridges within the project area. The installation of the exclusionary devices would occur during the fall or winter after fledging and before initiation of breeding activities (between September 1<sup>st</sup> and February 14<sup>th</sup>). A biological monitor would periodically inspect the exclusionary devices to ensure effectiveness.
- Nest removal is another method of preventing structure nesting/roosting species. CDFW considers February 15 to September 1 to be the swallow nesting season. Old nests or nests under construction would be washed down with water or knocked down with a pole. Swallows are strongly attracted to old nests or to the remnants of deteriorated nests, so all traces of mud would need to be removed. Because cliff swallows persistently rebuild nests for most of the breeding season, the nest removal method would require many consecutive days to prevent them from nesting using this method.

#### Burrowing Owl

- The avoidance and minimization measures for migratory birds would be applied to minimize the potential to impact the burrowing owls that may inhabit the project area prior to construction.

#### **Mitigation Measures**

- There are no mitigation measures proposed for these species.

## **THREATENED AND ENDANGERED SPECIES**

### **Regulatory Setting**

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 USC Section 1531, et seq. See also 50 CFR Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the FHWA, are required to consult with the USFWS and the NOAA Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFW is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

## Affected Environment

An NES was completed in September 2014. In order to comply with the provisions of various State and Federal environmental statutes and executive orders, the study area or ESA was field reviewed to 1) identify habitat types; 2) identify factors indicating the potential for threatened and endangered species; 3) identify threatened and endangered species present; and 4) identify potential impacts resulting from the proposed project.

The following information was analyzed as part of the environmental review process for threatened and endangered species:

- California Natural Diversity Database (CNDDB) Records
- CDFW BIOS Database

Field reviews were conducted by Caltrans biologists on December 14, 2012, and May 3, August 23, and November 19, 2013. The most current USFWS species list for the proposed project was obtained on September 22, 2014.

### Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (or VELB) is federally listed as a threatened species (FR 45:52803). The VELB occurs in remnants of riparian and elderberry savanna habitats in the Central Valley and foothill locations. The VELB larvae feed solely on elderberry shrubs (*Sambucus* spp.). The larvae are woodborers and feed internally in the roots and main stems of elderberry. Elderberry shrubs stems that are greater than 1.0 inch in diameter at ground level are required for the beetle to complete its life cycle. Adults feed on the flowers and foliage of elderberry. Adult beetles are active when the elderberry is in flower, usually between mid-March through mid-June. Adult beetles have generally been observed in areas where there is other associated riparian vegetation, especially larger trees. The beetle prefers riparian habitat in the valley with dominant plant species including cottonwood, sycamore, valley oak, and willow, with an understory of elderberry shrubs (USFWS 1991). There is potential for VELB to occur in the project area.

Within the study areas, Valley oak riparian habitat along Taylor Creek (Location 1), and non-riparian habitat in Location 2 support elderberry shrubs, which provide suitable habitat for the VELB. Sixteen closely grouped elderberry shrubs were identified within the study area in Locations 1 and 2, but no elderberry shrubs were observed within project limits in Location 3. No VELB were observed during surveys, however, old exit holes were observed in four shrubs at Taylor Creek.



### Giant Garter Snake

The giant garter snake (*Thamnophis gigas*) (GGS) is federally and state listed as threatened. The GGS feeds primarily on small fishes, tadpoles, and frogs. Habitat requirements consist of adequate water during the snake's active season (early-spring through mid-fall) to provide food and cover; emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; grassy banks and openings in waterside vegetation for basking; and higher elevation uplands for cover and refuge from flood waters during the snake's dormant season in the winter. The GGS occurs in agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley (CDFW 2000; USFWS 2003).

The GGS occupies small mammal burrows and other soil crevices above prevailing flood elevations throughout its winter dormancy period. The breeding season extends through March and April, and females give birth to live young from late July through early September (USFWS 2003).

Historically, the range of the GGS consisted of the San Joaquin Valley from the vicinity of Sacramento and Antioch southward to Buena Vista and the Tulare Lake Basin. The current distribution extends from near Chico, Butte County, to the vicinity of Burrel, Fresno County (CDFW 2000).

Waterways within the study area include: Taylor Creek, South Fork Willow Slough, and minor irrigation drainage ditches. Of these, only South Fork Willow Slough and an associated irrigation drainage ditch provide suitable GGS habitat within the study area. Taylor Creek conveys storm water runoff during the rainy season only and does not contain water during the active period of the GGS.

Biological studies identified and mapped 0.61 acre of suitable GGS habitat within the study area. There is potential for GGS to occur in the project area, though no GGS were detected during field surveys.

Yolo is among the 11 counties where the GGS is still presumed to occur. Within the Yolo Basin, Willow Slough provides suitable habitat for the GGS. The CNDDDB database search did not provide any records of occurrence in the Brooks, Esparto, or Madison quadrangles or in the South Fork Willow Slough. The nearest known occurrences are located 15 miles east outside the study area in Willow Slough southeast of Woodland, and in Willow Slough Bypass northeast of Davis.

### Swainson's Hawk

The Swainson's hawk is a migratory bird protected under the Federal Migratory Bird Treaty Act. In California, it is a listed threatened species.

Swainson's hawks typically nest in tall, densely covered trees located adjacent to suitable foraging habitat. Trees most commonly used in the Central Valley include valley oak, Fremont cottonwood, walnut, and large willows (*Salix* sp.) (Estep 1989). Nest trees are most commonly located in riparian woodlands adjacent to open grassland or agricultural lands. Nests may also be located in roadside trees and in isolated trees or clumps of trees in open terrain. The location of the nest site adjacent to suitable foraging habitat appears to be one of the most important criteria for occupancy of the nest territory (Estep 1989). Swainson's hawks exhibit a high rate of nest territory re-occupancy. However, use of alternative nests within the territory is common. Swainson's hawk may use an alternate nest in a different tree or, less often, may construct a new nest in the same tree.

Swainson's hawks breed from southern Canada, through the western U.S., and into northern Mexico. In California, Swainson's hawk were once found throughout lowland California and were absent from only the Sierra Nevada, north coast ranges, Klamath Mountains, and portions of the desert region of the state (Grinnell and Miller 1986). Nesting pairs of Swainson's hawks have been greatly reduced throughout much of this historic range. Currently, nesting territories are restricted to portions of the Central Valley and Great Basin regions of the state (Estep 1989). Swainson's hawks arrive in California between early and mid-March to begin breeding activities.

The selection of foraging habitat by the Swainson's hawk is considered to be a function of prey density as well as prey availability. Alfalfa is considered to be one of the more favorable cultivated foraging habitats, largely due to the sequence of monthly mowing and weekly flood irrigation that makes it a crop type of high prey availability for the duration of the breeding season. Newly disked fields, fallow fields, dry-land pasture, beets, tomatoes, and irrigated pasture have also been identified as preferred cover types. Rangelands, riparian systems, vineyards, orchards, oak woodlands, cotton, asparagus, onion fields, and developed areas are seldom used for foraging.

Swainson's hawks have been observed foraging in fields adjacent to Location 3 of the proposed project, and CNDDDB records indicates the presence of Swainson's hawk nests within 1 mile of the proposed project. Swainson's Hawk nesting surveys will be conducted during breeding season prior to the beginning of construction activities.

### Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is currently listed as endangered under the California endangered species act as of December 2014. They are common locally throughout the Central Valley (Zeiner et al. 1990). Tricolored blackbirds breed near fresh water, preferably in emergent wetland habitat containing tall, dense cattails or tules; they also breed in thickets of willow, blackberry, wild rose, and tall herbs (Zeiner et al. 1990). This species feeds in grassland and cropland habitats, mostly on insects and spiders, seeds, and cultivated grains (i.e., rice and oats), and forages on ground in croplands, grassy fields, flooded lands, and along pond edges (Zeiner et al. 1990).

Their nests are located over or near fresh water, typically in emergent wetland habitat or hidden nearby on the ground among low vegetation. The nests are composed of mud and plant materials. The tricolored blackbird is a highly colonial species. Suitable nesting habitat must be large enough to support a minimum colony of about 50 pairs. The nesting colonies are vulnerable to massive nest destruction by mammalian and avian predators, including Swainson's hawks (Zeiner et al. 1990).

Cropland, orchard-vineyard, valley oak riparian, and fresh emergent wetland habitats may provide suitable foraging habitats for the tricolored blackbird. These blackbirds have the potential to occur in the project area for foraging purposes, but it does not provide appropriate nesting habitat for this species.

## **Environmental Consequences**

### Valley Elderberry Longhorn Beetle

Potential impacts to the VELB could occur due to the direct removal or modification of 16 elderberry shrubs (86 stems over 1 inch at ground level) as a result of construction in Locations 1 and 2.

Construction of the project at Location 1 would remove a total of approximately 15 elderberry shrubs containing 82 stems that are 1.0 inch or greater in diameter at ground level. Four of the elderberry shrubs had exit holes (see table below). Work at location 2, near CR-82B, would directly impact one shrub with four stems over one inch at ground level. No exit holes were observed.

Indirect effects would include the clearing of vegetation for temporary access and construction; preparation, grading and construction of temporary access roads and staging areas, and their subsequent extensive use by heavy equipment and trucks; falsework construction; and soil stockpiling. These actions could temporarily impact 3 of the elderberry shrubs included in the Location 1 count, which are located within the project study limits.

Potential indirect effects to the VELB would include potential physiological stress to the beetle and lowered reproduction rates. Potential indirect effects to the VELB may be experienced during construction activities that could cause disruption of normal behavior patterns or result in avoidance of habitat by the VELB.

Caltrans determined that the proposed project could affect the VELB and submitted a Biological Assessment (BA) to USFWS based on the build alternative. Caltrans is currently in consultation with the USFWS and an approved Biological Opinion (BO) is expected in Winter of 2015. The most recent elderberry shrub count was conducted on November 17, 2013 to look for any new elderberry shrubs in the study area. No new occurrences were observed.

Potential Impacts to Suitable VELB Habitat

| <b>Project Segment</b> | <b>elderberry shrubs<br/>(and stems) affected</b> |
|------------------------|---|
| Location 1             | 15 (82)   |
| Location 2             | 1 (4)   |
| <b>Totals</b>          | <b>16 shrubs<br/>(86 stems)</b>                   |

#### Giant Garter Snake

Caltrans is currently in consultation with the USFWS and an a approved Biological Opinion (BO) is expected in Winter of 2015.

Construction would directly impact approximately 0.61 acre of GGS habitat (0.27 acre of aquatic habitat (South Fork Willow Slough) and 0.34 acre (roadside ditch) of upland habitat). These impacts would be classed as 'Level 1' effect category in the USFWS 1997 "Programmatic Biological Opinion on the Effects of Small Highway Projects on the Threatened Giant Garter Snake in Butte, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, Yolo and Yuba Counties, California (Snake Programmatic Consultation)".

Caltrans is currently in consultation with the CDFW and an application for a 2081 permit will be submitted prior to construction if needed. All conditions of the BO and 2081 permit would be adhered to.

### Swainson's Hawk

Potential impacts to the Swainson's hawk consists of the direct removal or modification of suitable habitat. Project construction would result in approximately 30.82 acres of potential impacts to foraging habitat, however, abundant foraging and nesting habitat is directly adjacent to the project limits. No nesting trees were observed within project limits during field surveys. If a nesting tree is discovered prior to construction, a Section 2081 Incidental Take Permit from CDFW would be obtained prior to construction to authorize the incidental take of the Swainson's hawk should project construction disturb the birds and cause them to potentially abandon their young.

### Tricolored Blackbird

Tricolored blackbirds were not observed in the study area during field surveys. Results of field surveys indicate that while there may be a small amount of potential foraging habitat for this species. In addition, this species has not been observed within project limits per CNDDDB 2014 records, and it is unlikely they would occur within project limits.

## **CEQA Considerations**

With mitigation, less than significant impacts to the valley elderberry longhorn beetle pursuant to CEQA are anticipated.

With mitigation, less than significant impacts to the giant garter snake pursuant to CEQA are anticipated.

## **Avoidance and Minimization Measures**

### Valley Elderberry Longhorn Beetle

- Before initiation of any vegetation removal, grading, or any other ground-disturbing activities, a qualified biologist would conduct mandatory worker awareness training for all construction personnel. The awareness training would provide information on how to avoid impacts to biological resources, particularly special-status species. The training would also inform workers of the penalties for not complying with mitigation requirements. If new construction personnel are subsequently added to the project, they too would receive the training.
- Prior to any ground-disturbing activities associated with the project, Caltrans shall install 20 feet of 4-foot-tall temporary, plastic mesh construction ESA fence where possible, from the driplines of elderberry shrubs that are not to be removed. The fencing is intended to prevent encroachment by construction vehicles and personnel.

The exact location of the fencing would be determined by a qualified biologist, with the goal of protecting VELB habitat. The fencing would be strung tightly on posts set at a maximum interval of ten feet. The fencing will be installed in a way that prevents equipment from enlarging the work area beyond what is necessary to complete the work. The fencing would be checked and maintained weekly until all construction is completed.

- A sign would mark this buffer zone and state the following 'This is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment'. The fencing and a note reflecting this condition would be shown on the construction plans. Signs would be legible from a distance of 20 feet and must be maintained for the duration of construction.

#### Giant Garter Snake

- Construction activity within suitable habitat would be conducted between May 1 and October 1 to minimize impacts to this species. This is the active period for giant garter snakes and thus direct mortality is lessened because snakes are expected to actively move and avoid danger.
- Clearing would be confined to the minimal area necessary to facilitate construction activities. Fencing and signs would designate avoided giant garter snake habitat within or adjacent to the project area as an ESA.
- Construction personnel would receive USFWS-approved worker environmental awareness training. This training instructs workers to recognize giant garter snakes and their habitat(s).
- Twenty-four hours prior to construction activities, the project area would be surveyed for GGS. Surveys of the project area would be repeated if a two-week or greater lapse in construction activity occurs. If a GGS is encountered during construction, activities would cease until appropriate corrective measures have been completed or it has been determined that the giant garter snake will not be harmed. Any sightings and any incidental take would be reported to the USFWS and CDFW immediately by telephone.
- Any dewatered habitat shall remain dry for at least 15 consecutive days after April 15<sup>th</sup> and prior to excavating or filling of the dewatered habitat.
- After completion of construction activities, any temporary fill and construction debris would be removed and, wherever feasible, disturbed areas restored to pre-project conditions. Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

### Swainson's Hawk

- If there are any new nest trees within the project limits prior to construction, they would be designated as ESAs and would be delineated on the project plans and in the project specifications. The boundaries of the ESA would be clearly marked in the field by the installation of a temporary fence. ESAs would be implemented as a first order of work and will remain in place until all construction activities are complete.
- Before initiation of any vegetation removal, grading, or any other ground-disturbing activities, a qualified biologist would conduct mandatory worker awareness training for all construction personnel. The awareness training would provide information on how to avoid impacts to biological resources, particularly special-status species. The training would also inform workers of the penalties for not complying with mitigation requirements. If new construction personnel are subsequently added to the project, they too would receive the training.
- Removal of native vegetation would be confined to the minimal area necessary to facilitate construction activities.
- The avoidance and minimization measures (tree removal during non-nesting season) for migratory birds would be applied to minimize the potential to impact nesting Swainson's hawk.
- Monitoring for Swainson's hawk would take place as appropriate during construction from March to September.

### Tricolored Blackbird

- The avoidance and minimization measures for migratory birds would be applied to minimize the potential to impact the tricolored blackbird. If this species is observed, appropriate resource agencies would be coordinated with.

## **Mitigation Measures**

### Valley Elderberry Longhorn Beetle

- Caltrans would purchase credits sufficient to compensate for the impacts to 250 elderberry shrubs, and an additional 290 associated native plantings from a USFWS approved conservation bank that services the proposed project area. Credits are purchased via VELB "units." Each unit translates to 10 credits, five for seedlings and five for associated species. Eighty units from a bank would compensate for 800 seedlings and associated species.

Compensatory Mitigation to Offset Project Impacts to Suitable VELB habitat

| Location   | Stem diameter | Number of Stems Impacted | Exit Holes Present on Shrub (Y/N) | Elderberry Seedling Ratio | Elderberry Seedling Plantings | Associated Native Plant Ratio | Associated Native Plantings |
|--|---------------|--------------------------|-----------------------------------|---------------------------|-------------------------------|-------------------------------|-----------------------------|
| Non-Riparian   | 1"-3"         | 4                        | No                                | 1:1                       | 4                             | 1:1                           | 4                           |
|  |               | 0                        | Yes                               | 2:1                       | 0                             | 2:1                           | 0                           |
|  | 3"-5"         | 0                        | No                                | 2:1                       | 0                             | 1:1                           | 0                           |
|  |               | 0                        | Yes                               | 4:1                       | 0                             | 2:1                           | 0                           |
|  | > 5"          | 0                        | No                                | 3:1                       | 0                             | 1:1                           | 0                           |
|  |               | 0                        | Yes                               | 6:1                       | 0                             | 2:1                           | 0                           |
| Riparian   | 1"-3"         | 26                       | No                                | 2:1                       | 52                            | 1:1                           | 52                          |
|  |               | 0                        | Yes                               | 4:1                       | 0                             | 2:1                           | 0                           |
|  | 3"-5"         | 15                       | No                                | 3:1                       | 45                            | 1:1                           | 45                          |
|  |               | 2                        | Yes                               | 6:1                       | 12                            | 2:1                           | 24                          |
|  | > 5"          | 15                       | No                                | 4:1                       | 60                            | 1:1                           | 60                          |
|  |               | 3                        | Yes                               | 8:1                       | 24                            | 2:1                           | 48                          |
| Total Elderberry and Associated Plant Species Plantings Needed toward Conservation of the VELB |               |                          |                                   |                           | 197                           |                               | 233                         |

#### Giant Garter Snake

- Caltrans would restore all 0.61 acre of GGS habitat through the onsite relocation, slope improvement and revegetation of South Fork Willow Slough and irrigation ditch. In addition, a one-year monitoring report showing pre- and post-project area photos would be submitted to USFWS and/or CDFW one year from the restoration implementation. The restoration and monitoring would follow USFWS Guidelines. If the restoration is unsuccessful, as determined by USFWS, consultation would be reinitiated and would include appropriate actions necessary to fulfill the success criteria for restoration of temporary disturbance.

#### Swainson's Hawk

- Caltrans would purchase credits if necessary for the loss of Swainson's hawk foraging habitat based on the ratios provided in the *Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California* (CDFW 1994):
- Swainson's hawk nesting activities are expected to occur between March 15<sup>th</sup> and September 15<sup>th</sup>. Project impacts within one mile of an active nest tree shall provide one credit for each acre of roadwork authorized (1:1 ratio).



- Project impacts within five miles of an active nest tree but greater than one mile from the nest tree shall provide 0.75 credit for each acre authorized (0.75:1 ratio).
- Project impacts within ten miles of an active nest tree but greater than five miles from an active nest tree shall provide 0.5 credit for each acre authorized (0.5:1 ratio).

## INVASIVE SPECIES

### Regulatory Setting

The FHWA guidance issued August 10, 1999, directs the use of the State's invasive species list currently maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the NEPA analysis for a proposed project.

### Affected Environment

An NES was completed in July 2014. Vegetation communities within the study area were classified based on plant community descriptions provided in "A Guide to Wildlife Habitats of California" (Mayer and Laudenslayer, eds, 1988), "A Manual of California Vegetation" (Sawyer and Keeler-Wolf, 1995), and "Preliminary Descriptions of the Terrestrial Natural Communities of California" (Holland, 1986).

Invasive weeds are the predominant species along the roadsides and within Caltrans rights-of-way. Noxious weed species observed include Italian thistle (*Carduus pycnocephala*), yellow star thistle (*Centaurea solstitialis*), field bind weed (*Convolvulus arvensis*), dodder (*Cuscuta* sp.), Bermuda grass (*Cynodon dactylon*), tumbleweed (*Salsola tragus*), Johnson grass (*Sorghum halapense*), and puncture vine (*Tribulus terrestris*).

#### Habitat Vulnerability to Noxious Weed Infestation

Ground disturbance associated with construction poses a high risk for the spread of noxious weeds into native habitats from ruderal roadside vegetation and cultivated fields along SR-16. The grasslands, wetlands, Valley oak riparian, and blue oak woodland habitats (outside of project limits) are highly vulnerable to the spread of noxious weeds.

### Environmental Consequences

#### Non-Project-Dependent Vectors

Farm workers, recreationists, and others can carry noxious weed seeds into the project area on clothing and tools. Wildlife and domestic animals, especially dogs, often vector noxious weed seeds in their coats. These potential noxious weed vectors are not expected to increase as a result of the proposed project activities.

### Habitat Alteration Expected as a Result of the Project

Construction of the project would result in new cut/fill slopes, removal of woodland canopy coverage and vegetated ground cover, and areas of disturbance associated with construction staging and access roads, resulting in a net increase in disturbed roadside area, and a reduction in shade. Noxious weed sources were detected in habitats in the study area and could move into newly disturbed areas. Habitat modification as a result of project construction represents a high risk for the infestation and spread of noxious weeds. If left untreated, the newly disturbed areas would provide optimal conditions for noxious weeds.

### Increased Vectors as a Result of Project Implementation

Project induced vectors include weed seed brought in on tools, workers' vehicles, and on project workers' clothing and boots. The potential for spreading existing noxious weed infestations on workers' clothing boots, tools, and vehicles is high.

None of the species on the California list of invasive species is currently used by Caltrans for erosion control or landscaping.

### **CEQA Considerations**

Less than significant impacts from invasive species pursuant to CEQA are anticipated with the implementation of the avoidance and minimizations measures.

### **Avoidance, Minimization, and/or Mitigation Measures**

#### **Avoidance and Minimization Measures**

- All construction equipment would be clean of potential noxious weed sources (mud, vegetation) before entering the project area, to help ensure noxious weeds from outside of the project area are not introduced into the project area.
- Equipment would be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.
- Only native plant species appropriate for the project area would be used in any erosion control or revegetation seed mix or stock. Certified weed-free straw would be required where erosion control straw is to be used. In addition, any hydro-seed mulch used for revegetation activities must also be certified weed-free.

- Non-native plant control would consist of mechanical or spot chemical treatments of the selected most invasive plant species listed by the United States Department of Agriculture (USDA), California Exotic Pest Plant Council (CEPPC), and the California Invasive Plant Council (CALIPC) that if left untreated, would dominate the onsite revegetation area.

### **Mitigation Measures**

- No mitigation measures are required for Invasive Species.

## **Construction Impacts**

### **Temporary Air Quality and Noise Impacts During Construction**

The construction of roadway improvements could generate temporary air quality impacts (e.g., increase in diesel fumes and dust) and noise impacts from heavy equipment operations. From a human environment perspective, the impacts would be most pronounced in the parts of the project area where developed land uses are adjacent to or near the project site.

#### Air Quality

The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM<sub>10</sub>, would be the primary short-term construction impact, and may be generated during excavation, grading and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature and minimized with the following:

- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

#### Noise

During construction noise may be generated from the contractors' equipment and vehicles. Caltrans requires the contractor to conform to the provisions of Standard Specification, Section 14-8.02 "Noise Control":

- Noise levels would not exceed 86 dBA LMax at 50 feet from the job site activities from 9 p.m. to 6 a.m.

- Equipment would include an internal combustion engine with manufacturer-recommended muffler.
- An internal combustion engine would not be operated on the job site without the appropriate muffler.

## **Cumulative Impacts**

### **REGULATORY SETTING**

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines.

## **Environmental Resources Considered in the Cumulative Effects Analysis**

### **Affected Environment**

#### **Biological Resources**

The Road Safety Assessment (RSA) considered for assessing incremental impacts to biological resources includes the area within a 1-mile radius of the SR-16 project limits, including the rural towns of Esparto, and Madison. Biological resources considered for cumulative impacts includes VELB, GGS, and Swainson's hawk foraging habitat.

## **Development**

The following actions were identified that could contribute to the cumulative impacts to biological resources.

### **Past Actions In The Project Area**

- Yocha-De-He Golf Club-18 hole golf course
- Esperanza Estates Residential Subdivision, Esparto (95 units)

### **Present Actions In The Project Area**

- Lopez Residential Subdivision, Esparto (72 units)
- Proposed Caltrans SR-16 Safety Improvement Project

### **Reasonably Foreseeable Future Actions In The Project Area**

- Capay Cottages Residential Subdivision, Esparto area (20 units)
- East Parker Residential Subdivision, Esparto (80 units)
- Orciuoli Residential Subdivision, Esparto area (180 units)
- Storey Residential Subdivision, Esparto area (60 units)
- Deterding Town Center Project, 70-acre mixed-use development site (Adjacent to SR-16 north of Woodland Avenue)
- Esparto New High School
- Kaufman Homes Subdivision (1,335 units) I-505 and SR-16 area
- Esparto Main Street Revitalization (Completed by 2020)

The proposed Cache Creek Casino Expansion project was initially considered but it was deleted because the project was withdrawn from consideration for approval from the county.

## **Direct and/or Indirect Impacts**

### **Biological Resources**

#### **Valley Elderberry Longhorn Beetle (VELB)**

Of the projects identified in the RSA, the Yocha-De-He Golf Club, the Esparto New High School, and the proposed Caltrans SR-16 Safety Improvement Project were the only projects that identified potential impacts to the VELB. The Yocha-De-He Golf Club applied measures to avoid impacts to the VELB. The environmental document for the Esparto New High School identified that impacts to the VELB would be avoided.

#### **Giant Garter Snake (GGS)**

Of the recent past, present, and reasonably foreseeable future projects, only the proposed Caltrans SR-16 Safety Improvement Project has the potential to impact the GGS or its habitat. The incremental impacts of the proposed project would not be cumulatively considerable.

#### **Tricolored Blackbird**

Of the recent past, present, and reasonably foreseeable future projects, only the proposed Caltrans SR-16 Safety Improvement Project has the potential to impact the GGS or its habitat. The incremental impacts of the proposed project would not be cumulatively considerable.

This species has not been observed within project limits per CNDDB 2014 records, therefore, it is unlikely that the incremental impacts of the proposed project would be cumulatively considerable.

#### **Valley Oak Riparian**

Of the past, present, and future projects identified in the RSA, the Yocha-De-He Golf Club is the only project that identified impacts to Valley oak trees and Valley oak riparian habitat. The Yocha-De-He Golf Club impacted approximately eight Valley oak trees and 0.15 acre of Valley oak riparian habitat. The impacts were mitigated to reduce the adverse effect to a less than significant level. No other past, present, or future projects have or proposed impacts to Valley oak trees and Valley oak riparian habitat in the RSA.

When viewed in connection with the effects of past, current, and probable future projects, the potential, incremental effects to Valley oak riparian habitat by the proposed SR-16 safety improvement project would not be cumulatively considerable, with mitigation incorporated.

### **Wetlands and Other Waters**

Of the recent past, present, and reasonably foreseeable future projects identified in the RSA, only the Caltrans SR-16 Safety Improvement Project has the potential to impact wetlands and other waters. When viewed in connection with the effects of past, current, and probable future projects, the potential, incremental effects to wetlands and other waters by the proposed SR-16 SIP would not be cumulatively considerable, with mitigation incorporated.

### **Swainson's Hawk Foraging Habitat**

#### **Past Actions In The Project Area**

##### Yocha-De-He Golf Club

The Yocha-De-He Golf Club impacted approximately 190 acres of Swainson's hawk foraging habitat. There are four active Swainson's hawk nests within 6 to 8.5 miles of that project, however, no active Swainson's hawk nest trees were removed. The loss of Swainson's hawk foraging habitat was considered significant and unavoidable. An "Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County", was executed in August, 2002, between the Cities of Davis, West Sacramento, Winters, and Woodland; the County of Yolo, and the CDFW (Habitat Conservation Joint Powers Agency). The agreement required 1.0 acre of habitat management lands as mitigation for each 1.0 acre of Swainson's hawk foraging habitat lost.

##### Esperanza Estates Residential Subdivision

The Esperanza Estates impacted approximately 27 acres of Swainson's hawk foraging habitat. Mitigation for the loss of 27 acres of Swainson's hawk foraging habitat was accomplished with an off-site habitat conservation easement on the southwest portion of Assessor's Parcel Number 25-46-04 near County Roads 24 and 93. Project mitigation included a measure requiring on-site preservation of suitable nest trees on lots 88 and 89. The potential adverse impact was mitigated to a less than significant level.

#### **Present Actions In The Project Area**

##### Lopez Residential Subdivision

The Lopez subdivision impacted approximately 22 acres of Swainson's hawk foraging habitat. The impact was considered significant and unavoidable.

## **Reasonably Foreseeable Future Actions In The Project Area**

### **Capay Cottages Residential Subdivision**

The Mitigated Negative Declaration (2007) identified that the project would result in the loss of approximately 3.2 acres of Swainson's hawk foraging habitat and that compensatory mitigation would be required by the Habitat Conservation Joint Powers Agency to offset the impacts

### **Residential Subdivision**

The East Parker subdivision would impact approximately 16.9 acres of Swainson's hawk foraging habitat. There are no active nests that would be removed by the project. The Mitigated Negative Declaration (2007) identified compensatory mitigation that would require the applicant to pay a mitigation fee to the Habitat Conservation Joint Powers Agency to compensate for the loss of approximately 16.9 acres of Swainson's hawk foraging habitat.

### **Residential Subdivision**

The Orciuoli subdivision would impact approximately 35.2 acres of Swainson's hawk foraging habitat. There are no active nests that would be removed by the project. The nearest known active nests are located approximately four miles northeast and four miles southeast of the project.

### **Residential Subdivision**

The Storey subdivision would impact approximately 17.3 acres of Swainson's hawk foraging habitat. There are no active nests that would be removed by the project. The Esparto School District is encouraged to pay a mitigation fee to the Habitat Conservation Joint Powers Agency to compensate for the loss of approximately 17.3 acres of Swainson's hawk foraging habitat.

### **Esparto New High School**

The high school project would impact approximately 28 acres of Swainson's hawk foraging habitat. There are no active nests that would be removed by the project.

### **Cache Creek Casino Expansion Project**

The Cache Creek Casino Expansion (Now Suspended) would have impacted approximately 10 acres of Swainson's hawk foraging habitat, however, no active nests would be removed by the project. The EIR contains a mitigation measure that would require the applicant to pay a mitigation fee to the Habitat Conservation Joint Powers Agency to compensate for the loss of ten acres of Swainson's hawk foraging habitat.



There are six known nest trees within the RSA, all within Location 3. There are no known nest trees within the RSA of Locations 1 and 2, however, suitable foraging habitat exists that could be used by hawks nesting in the area of Location 3. It is unknown if the proposed project would remove any nest trees. There are approximately 15,000 acres of suitable Swainson's hawk habitat within the RSA. This project would result in the loss of 30.82 acres of suitable foraging habitat. This represents a loss of 0.25% of the available foraging habitat within the RSA.

### **Farmland**

The RSA considered for assessing incremental impacts to farmland includes the area within a 1-mile radius of the SR-16 project limits, including the rural towns of Esparto, and Madison.

The Capay Valley has been principally agricultural since the mid-nineteenth century. In 2012, Yolo County had 1,011 farms with more than 460,000 acres in production. In 2010, there were 374,534 acres of important farmland and an additional 160,450 acres of grazing land within Yolo County.

The project area is predominantly agricultural. The farmland directly adjacent to the proposed project is primarily irrigated lands, with dry farming and grazing lands more dominant outside of the immediate project area. There is scattered and limited urban development, including the towns of Esparto and Madison and the Cache Creek Casino Complex.

Cumulative impacts to farmland in the project area may result from residential, commercial, industrial, and highway development.

### **Development**

The following actions were identified that could contribute to the cumulative impacts to farmland.

#### **Past Actions In The Project Area**

- Yocha-De-He Golf Club-18 hole golf course
- Esperanza Estates Residential Subdivision, Esparto (95 units)

#### **Present Actions In The Project Area**

- Lopez Residential Subdivision, Esparto (72 units)

- Proposed Caltrans SR-16 Safety Improvement Project

**Reasonably Foreseeable Future Actions In The Project Area**

- Capay Cottages Residential Subdivision, Esparto area (20 units)
- East Parker Residential Subdivision, Esparto (80 units)
- Orciuoli Residential Subdivision, Esparto area (180 units)
- Storey Residential Subdivision, Esparto area (60 units)
- Deterding Town Center Project, 70-acre mixed-use development site (Adjacent to SR-16 north of Woodland Avenue)
- Esparto New High School
- Kaufman Homes Subdivision (1,335 units) I-505 and SR-16 area
- Esparto Main Street Revitalization (Completed by 2020)

The proposed Cache Creek Casino Expansion project was initially considered but it was not considered here because the project was withdrawn from consideration for approval from the county.

Other projects in the area could directly contribute to the permanent conversion of farmland. There are several residential projects currently proposed for the Esparto area. If all of these projects are approved and completed they could contribute up to 462 additional residential units to the town. Tentative revisions to land use plans for Madison have called for up to 1000 additional residential units in the area. There are however, considerable limitations to additional growth in Madison, most notably, inadequate infrastructure. This coupled with numerous other development restrictions make urban development in Madison highly unforeseeable.

The Cache Creek Casino had announced plans to expand the existing facility (now suspended). However, in the Tribal Environmental Impact Report (TEIR) for the expansion, they conclude that the expansion would have no direct or indirect impact to off-reservation agricultural lands.

In the Capay Valley, the greatest threat to the continued use of farmland lies in the land's development potential. However, currently, development pressure is highly tempered by land use policies, zoning restrictions and community attitudes.

There are no measures available to physically replace agricultural lands, particularly prime farmland, as a result of conversion to other uses.

The County's Zoning Code requires private interests to offset the conversion of agricultural land by providing for conservation easements at a 1:1 ratio. As a state agency, Caltrans is not subject to this requirement. It is anticipated that future residential, commercial, and industrial development within Yolo County will be subject to the County's mitigation requirements.

The project will directly result in the permanent removal of approximately 30 acres of farmland from 16 parcels. This is 0.008 percent of the total farmland available in Yolo County. The farmland acquisitions required range in size from 0.1 to 3.6 acres per parcel. It is not anticipated that any landowners who wish to continue farming operations will be precluded from doing so by acquisitions related to the proposed project. Additionally, existing Williamson Act contracts will be modified only for the portion of the parcel being acquired, leaving the remaining acreage still protected under existing contracts.

## **CEQA Considerations**

### **Avoidance and Minimization Measures**

- Impacts to biological resources would be avoided where possible, and otherwise limited to the minimum amount necessary to construct the project.
- Impacts to farmland would be avoided where possible, and otherwise limited to the minimum amount necessary to construct the project. As a result of coordination with the Natural Resources Conservation Service, the farmland impacts are not considered cumulatively considerable.

### **Mitigation Measures**

- The proposed project would include mitigation required to fully offset impacts to VELB; therefore, the project would not contribute to cumulative impacts to this resource.
- The proposed project would include mitigation required to fully offset impacts to GGS; therefore, the project would not contribute to cumulative impacts to this resource.
- The proposed project would include mitigation required to fully offset impacts to Swainson's hawk; therefore, the project would not contribute to cumulative impacts to this resource.

- The proposed project would include mitigation required to fully offset impacts to Valley oak riparian; therefore, the project would not contribute to cumulative impacts to this resource.
- The proposed project would include mitigation required to fully offset impacts to Wetlands and other waters; therefore, the project would not contribute to cumulative impacts to this resource.

## **CLIMATE CHANGE**

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles make up the largest source of GHG-emitting sources. The dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change: "Greenhouse Gas Mitigation" and "Adaptation." "Greenhouse Gas Mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>4</sup>.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity, 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle

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<sup>4</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

technologies/efficiency. To be most effective, all four strategies should be pursued cooperatively.<sup>5</sup>

## **Regulatory Setting**

### **State**

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and proactive approach to dealing with GHG emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order (EO) S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to 1) year 2000 levels by 2010, 2) year 1990 levels by 2020, and 3) 80 percent below the year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32 (AB 32), Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.”

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Cal/EPA and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007, Greenhouse Gas Emissions: This bill required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the CEQA Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board (CARB) to set regional

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<sup>5</sup> [http://www.fhwa.dot.gov/environment/climate\\_change/mitigation/](http://www.fhwa.dot.gov/environment/climate_change/mitigation/)

emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

## **Federal**

Although climate change and GHG reduction are a concern at the federal level, currently no regulations or legislation have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the U.S. EPA nor the FHWA has issued explicit guidance or methods to conduct project-level GHG analysis.<sup>6</sup> FHWA supports the approach that climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by FHWA to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Climate change and its associated effects are also being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the "National Clean Car Program" and EO 13514 - *Federal Leadership in Environmental, Energy and Economic Performance*.

Executive Order 13514 (October 5, 2009): This order is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

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<sup>6</sup> To date, no national standards have been established regarding mobile source GHGs, nor has U.S. EPA established any ambient standards, criteria or thresholds for GHGs resulting from mobile sources.

U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions. U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010.<sup>7</sup>

The U.S. EPA and the NHTSA are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards this program is projected to save approximately four billion barrels of oil and two billion metric tons of GHG emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut greenhouse gas emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish greenhouse gas emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO<sub>2</sub> emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles.

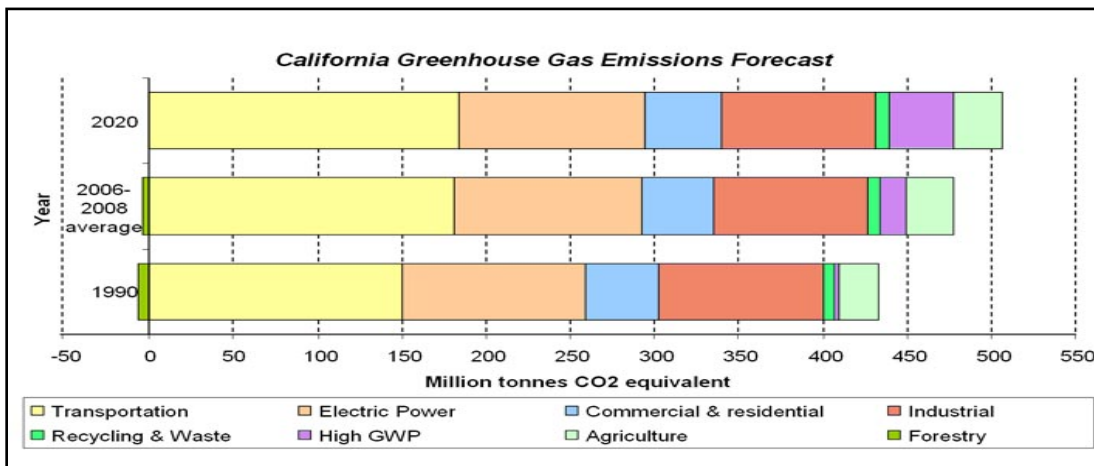
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<sup>7</sup> <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

## Project Analysis

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.<sup>8</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

The Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, the ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.



### California GREENHOUSE GAS FORECAST

Taken from : <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

<sup>8</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).



Caltrans and its parent agency, the California State Transportation Agency (CalSTA), have taken an active role in addressing GHG emission reduction and climate change.

Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human-made GHG emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.<sup>9</sup>

The purpose of the proposed project is to improve safety, and although turn lanes would be added, the project would not increase overall roadway capacity and, therefore, is not expected to increase operational CO<sub>2</sub> emissions. The traffic-smoothing impacts of the project would also result in decreased idling of vehicles at the intersection. Construction emissions would be unavoidable but there would likely be long-term CHG benefits by improved operation and smoother pavement surfaces, as applicable.

### **Construction Emissions**

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

### **CEQA Conclusion**

While the project will result in a slight increase in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. While it is Caltrans' determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct impacts and its' contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

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<sup>9</sup> Caltrans Climate Action Program is located at the following web address: [http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

## Greenhouse Gas Reduction Strategies



Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from then-Governor Arnold Schwarzenegger's Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in GHG emissions, while accommodating growth in population and the economy.

### Mobility Pyramid

The Strategic Growth Plan relies on a complete systems approach to attain CO<sub>2</sub> reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in The Mobility Pyramid.

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities, but does not have local land use planning authority. Caltrans assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. EPA and ARB.

Caltrans is also working towards enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375 (Steinberg 2008), SB 391 (Liu 2009) requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill (AB) 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas (GHG) emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system.

The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State's transportation needs.

The following table summarizes Caltrans and statewide efforts that Caltrans is implementing to reduce GHG emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

| Climate Change/CO <sub>2</sub> Reduction Strategies                           |  |                                     |  |  |  |                           |
|---|--|-------------------------------------|--|--|--|---------------------------|
| Strategy  | Program  | Partnership                         |  | Method/Process   | Estimated CO <sub>2</sub> Savings<br>Million Metric Tons (MMT) |                           |
|   |  | Lead                                | Agency   |  | 2010   | 2020                      |
| Smart Land Use  | Intergovernmental Review (IGR)   | Caltrans                            | Local governments                                | Review and seek to mitigate development proposals                              | Not Estimated  | Not Estimated             |
|   | Planning Grants  | Caltrans                            | Local and regional agencies & other stakeholders | Competitive selection process  | Not Estimated  | Not Estimated             |
|   | Regional Plans and Blueprint Planning                                    | Regional Agencies                   | Caltrans   | Regional plans and application process   | 0.975  | 7.8                       |
| Operational Improvements & Intelligent Transportation System (ITS) Deployment | Strategic Growth Plan  | Caltrans                            | Regions  | State ITS; Congestion Management Plan  | 0.07   | 2.17                      |
| Mainstream Energy & GHG into Plans and Projects                               | Office of Policy Analysis & Research; Division of Environmental Analysis | Interdepartmental effort            |  | Policy establishment, guidelines, technical assistance                         | Not Estimated  | Not Estimated             |
| Educational & Information Program   | Office of Policy Analysis & Research                                     | Interdepartmental, CalEPA, ARB, CEC |  | Analytical report, data collection, publication, workshops, outreach           | Not Estimated  | Not Estimated             |
| Fleet Greening & Fuel Diversification   | Division of Equipment  | Department of General Services      |  | Fleet Replacement B20 B100   | 0.0045   | 0.0065<br>0.045<br>0.0225 |
| Non-vehicular Conservation Measures   | Energy Conservation Program  | Green Action Team                   |  | Energy Conservation Opportunities  | 0.117  | 0.34                      |
| Portland Cement   | Office of Rigid Pavement   | Cement and Construction Industries  |  | 2.5 % limestone cement mix<br>25% fly ash cement mix<br>> 50% fly ash/slag mix | 1.2<br>0.36  | 4.2<br>3.6                |
| Goods Movement  | Office of Goods Movement   | Cal EPA, ARB, BT&H, MPOs            |  | Goods Movement Action Plan   | Not Estimated  | Not Estimated             |
| Total   |  |                                     |  |  | 2.72   | 18.18                     |

Climate Change (June 22, 2012): is intended to establish a Caltrans policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013)<sup>10</sup> provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

<sup>10</sup> [http://www.dot.ca.gov/hq/tpp/offices/orip/climate\\_change/projects\\_and\\_studies.shtml](http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/projects_and_studies.shtml)

The following measures would also be included in the proposed project to reduce the GHG emissions and potential climate change impacts from the project:

1. Traffic handling charts and specifications would be incorporated into the proposed project during the design phase that would be included as part of the contractor's specification package in order to manage temporary construction delays.
2. Restrictions on when lanes may be closed.
3. Public notices and press releases provided in local newspapers before major stage or traffic shifts.
4. A Construction Zone Enhanced Enforcement Program (COZEED) with the CHP during major construction that affects traffic, such as stage changes and traffic shifts.
5. Changeable message signs to alert motorists to unusual or new conditions and any delays that develop
6. Tree removal that has taken place along or near residential development would be replanted in kind with the type of trees and vegetation that has been removed.
7. Large trees that need to be removed due to the construction activities should be replaced by similar ornamental variety or native trees, where they do not interfere with roadway functions or utilities.

### **Adaptation Strategies**

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released

its interagency task force progress report on October 28, 2011<sup>11</sup>, outlining the federal government's progress in expanding and strengthening the Nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts.

The report provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks.

Climate change adaptation must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea level rise.

In addition to addressing projected sea level rise, the California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop The California Climate Adaptation Strategy (Dec 2009)<sup>12</sup>, which summarizes the best-known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to EO S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the California Environmental Protection Agency; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

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<sup>11</sup> <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

<sup>12</sup> <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

The National Academy of Science was directed to prepare a Sea Level Rise Assessment Report<sup>13</sup> to recommend how California should plan for future sea level rise. The report was released in June 2012 and included:

- Relative sea level rise projections for California, Oregon and Washington taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates.
- The range of uncertainty in selected sea level rise projections.
- A synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems.
- A discussion of future research needs regarding sea level rise.

In 2010, interim guidance was released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise. Subsequently, CO-CAT updated the Sea Level Rise guidance to include information presented in the National Academies Study.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise are directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

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<sup>13</sup> *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at [http://www.nap.edu/catalog.php?record\\_id=13389](http://www.nap.edu/catalog.php?record_id=13389).

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change effects, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, Caltrans will be able to review its current design standards to determine what changes, if any, may be needed to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted in response to EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.



## **Chapter 3 – Comments and Coordination**

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation, the level of analysis required, and to identify potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including: Project Development Team (PDT) meetings, interagency coordination meetings, and public information meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

### **Federal Endangered Species Act (FESA) Consultation Summary**

To initiate FESA consultation, an amended Biological Assessment (BA) for the proposed project is anticipated to be submitted to the USFWS in the winter of 2015.

### **California Endangered Species Act (CESA) Consultation Summary**

Consultation and coordination with the CDFW as required under CESA has been ongoing and will continue through the permit application and approval process, which is expected to occur in 2015.

### **Federal Wetlands and Other Waters Coordination Summary**

The wetland area that is present within the study limits was delineated according to the methodology set forth in the USACE's 1987 Wetlands Delineation Manual. A positive determination for wetlands was made in 2014 based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Work in these drainages and wetlands will require a Section 404 permit from the USACE, a 401 certification from the Central Valley Regional Water Quality Control Board (CVRWQCB), and a 1602 Streambed Alteration Agreement from the CDFW. It is anticipated that permit applications will be submitted in May of 2015.

California Fish and Game Code Section 1602 requires notification before beginning any activities that obstruct or divert the natural flow of a river, stream, or lake; change or use any material from the bed, channel, or bank of a river, stream, or lake; or deposit or disposal of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Consultation and coordination with the USACE and the CDFW has been ongoing and will continue through the permit application and approval process, which is expected to occur in 2015.

### **Cultural Resources Consultation Summary**

Representatives of local Native American groups were contacted regarding any issues of concern related to the proposed project. These contacts, based on an updated list of Native American contacts provided by the Native American Heritage Commission, consisted of letters dated May 31, 2012.

Although no specific concerns were expressed about the project, three meetings have been held with the Yoche Dehe Wintun Nation. Consultation efforts will continue throughout the life of the project.

### **Natural Resources Conservation Service (NRCS)**

Caltrans submitted a completed the Farmland Conversion Impact Rating Form AD-1006 to the NRCS in June 2014. (See Appendix F)

### **California Department of Conservation – Division of Land Resource Protection**

Caltrans provided the first notice of intent to acquire land that is restricted by Williamson Act Contract in June 2014. (See Appendix G & H)

### **Public Open House**

#### June 26, 2014

On June 26, 2014, Caltrans conducted an open house at the Esparto Community Hall. Approximately 20 people attended. The primary goal of the open house was to inform the public of progress made on the current scope of the proposed project and to gather additional community input.

Several of the comments had to do with the proposed roundabout. Some attendees expressed concern about whether or not agricultural equipment would be able to safely use the roundabout. In addition, many attendees expressed concern about how much right-of-way Caltrans is proposing to acquire from their respective parcels. A few residents also expressed concerns with respect to flooding and drainage issues especially between Esparto and Madison.

July 24, 2014

On July 24, 2014, Caltrans conducted a second open house at the Esparto Community Hall. Approximately 25 people attended. The primary goal of the open house was to inform the public of progress made on the scaled down version of the proposed project and to gather additional community input.

A total of nine comments were received at the workshop. The majority of these written and oral comments had to do with the proposed roundabout and/or signalization of the intersection of SR-16 and CR-89. In addition, many attendees expressed concern about how much R/W Caltrans is proposing to acquire from their respective parcels.

**Meeting with Madison Migrant Center**

On September 19, 2014, an outreach meeting between Caltrans, the operators and residents of the Madison Migrant Center, and officials from Yolo County, was held at the Madison Migrant Center. The primary goal of the outreach meeting was to inform the residents and operators of the migrant center about the project and to gather their input on the proposed project. Many of the residents expressed concern about being able to safely ingress and egress onto SR-16 from the Migrant Center. Some residents expressed interest about Caltrans providing an additional ingress and egress location into the Center from a side road.

This Initial Study with Proposed Mitigated Negative Declaration will be made available for public and agency review and comment for 30 days. Caltrans will ensure that the document will be made available to all appropriate parties and agencies, including the following: 1) responsible agencies, 2) trustee agencies that have resources affected by the project, 3) other state, federal and local agencies which have regulatory jurisdiction, or that exercise authority over resources that may be affected by the project, 4) the general public. Copies of the document will be made available at the Caltrans District 3 Office of Environmental Management (M-1) located at 703 B St., Marysville, CA 95901 and at the Yolo County Library - Esparto, 17065 Yolo Avenue, Esparto, CA 95627 and via the Internet at [www.dot.ca.gov/dist3/departments/envinternet/yolo.htm](http://www.dot.ca.gov/dist3/departments/envinternet/yolo.htm)

## **Chapter 4 – List of Preparers**

The following Caltrans District 3 staff contributed to the preparation of this Initial Study:

**Chris Carroll**, Associate Environmental Planner. Contribution: Environmental Coordinator and Document Writer

**Susan Bauer**, Senior Environmental Planner. Contribution: Document Reviewer

**Suzy Melim**, Senior Environmental Planner. Contribution: Environmental Branch Chief and Document Reviewer

**Erin Dwyer**, Associate Environmental Planner (Archaeology). Contribution: Historic Property Survey Report (HPSR)

**Kelley Nelson**, Associate Environmental Planner (Natural Sciences). Contribution: Project Biologist, Natural Environmental Study (NES)

**Chris Kuzak**, Associate Environmental Planner (Architectural Historian). Contribution: Historic Resources Evaluation Report

**Kathleen Grady**, Landscape Architect. Contribution: Visual Impact Assessment (VIA)

**Mark Melani**, Associate Environmental Planner (Hazardous Waste). Contribution: Hazardous Waste Initial Site Assessment (ISA)

**Saeid Zandian**, Transportation Engineer (Air/Noise Specialist), Contribution: Air Quality and Noise Studies

**Sean Cross**, Transportation Engineer. Contribution: Water Quality Study

**Steve Heryford**, Transportation Engineer. Contribution: Project Design

**Michelle Parkinson**, Transportation Operations. Contribution: Traffic Analysis Report

**Mike Hagen**, Traffic Safety. Contribution: Traffic Safety Information

**Lee Martin**, R/W Agent. Contribution: R/W Acquisition

**Sutha Suthahar**, Project Manager. Contribution: Project Manager

**Clark Townsend**, Hydraulics. Contribution: Drainage Recommendations

## Chapter 5 – Distribution List

The following agencies, organizations, and individuals will be sent a copy of this MND.

### Private Citizens

|  |                               |
|--|-------------------------------|
| Greg and Cynthia Amaral                | E.B. George, c/o Robert Glauz |
| Nina Andres                            | Marie L. Gravink              |
| Mark Armstrong                         | Frank and Barbara Greer       |
| John Arnold                            | Ann Grube                     |
| Bill Arnold                            | Leslie Guidera                |
| Joe and Dori Azzolino                  | Benito Guzman                 |
| Loy Baker                              | Cecelia Hammersmith           |
| William and Malinda Baker              | Mabel F. Hansen               |
| Noah Barnes                            | William W. Harris             |
| Frank and Lillah Barsotti              | Arthur Harris                 |
| Michael and Marianne Beeman            | Patricia Harrison             |
| Jane L. Berton                         | Alfred Hayes                  |
| Harry Borg                             | Mabel Hensen                  |
| Linda Bowser                           | Walter Hensen                 |
| Anna and Andrew Brait                  | Ann Herger Trust              |
| Robert and Shirley Bramlett            | Alexander Hernandez           |
| Harvey Burlison                        | Hans and Barbara Herren       |
| Clifford and Marian Cain               | Craig Hoffman                 |
| Elizabeth and Kevin Campbell           | Jack and Phillis Huie         |
| Becky Carson                           | Mowe Hy                       |
| John Ceteras                           | Jimmie Icardo                 |
| Anne E. Chandon                        | George and Helga Jandera      |
| Jim Chandon                            | Rick Jenness                  |
| Charles Clements                       | Glen and Lyle Jensen          |
| Wyatt Cline                            | Lyle Jensen                   |
| Lorry Cummings                         | Ronald Jones                  |
| John and Carmel Dalton                 | Melissa Jordan                |
| Calos De La Fuente                     | John Felix Karrer             |
| Jay and Lillian Delos Reyes            | Rae and Roa Keehn             |
| David Bennitt Denebeim                 | Eugene and Frieda E. Knauss   |
| Matt Dobbin                            | Ronald and Rae Kuhn           |
| Nicholas Echarte                       | Ardith Laing                  |
| Gordon W. Elden                        | Derek Larsen                  |
| Douglas E. Erickson                    | Philip Lee                    |
| Nicole, Vincent, and Victoria Faccioto | Juan and Margarita Lerma      |
| Terry Farnham                          | Tony Lopes                    |
| Alfred J. Favro                        | Carol Lorenzo                 |
| Hendrik Feenstra                       | Jan Lowrey                    |
| Pelayo Fernando                        | Ramona Manas                  |
| George L. and William G. Fiske         | Nancy Mapes                   |
| Heather Fiske                          | Pamela Marvel                 |
| Moir Fitzgerald                        | Larry Mayer                   |
| Alan Friedman                          | Brian McCrady                 |
| Eleanor Kay Friedman                   | Anne and Michael McDonald     |
| Nona Garrison                          | Doralea McKissick             |
| Gilberto and Irma Gifueroa             | Don McNab                     |
| Joseph Gimenez                         | Michael Middleton             |
|  | Santi and Verline Miguel      |

*State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration*

Russell D. and Linda L. Mitchell  
Robert Morris  
Paul Muller  
Mark and Dawn Myers  
Mark Nichols  
Herbert and Ruby Nitta  
Audrey Nitta Trust  
Dominic Norman  
Mike and Donna O'Kane  
Charles Oppen  
Nicola and Enina Orciuoli  
James Ousey  
Leonard and Catherine Overhouse  
Donald Owings  
Elizabeth Pearson  
Ellen A. Peckham  
Jan Penrose  
Ken and Linda Pillard  
Michael Plyer  
Karen Powell  
Wes Preston  
Michael Rabaino  
Jose Ramirez  
Aziz Amin Khaled Ramish  
Dru Rivers  
Michael E. Robinson  
Craig H. Rockwell  
Frank Rose  
Richard Russell  
Carl and Nadine Salonites  
Conrad and Mary Salvador  
Jose and Guadalupe Sandoval  
Derek Schatz  
Charles Schaupp  
Stephen E. Schuchman  
Craig D. Schwarz  
Becky and Dave Schwenger

William E. Seltzer  
Harold and Bobbie Sheldon  
John Carroll Smith  
Thomas and Wanda Spiva  
John Springer  
Gladys Stamates  
Alice Stephens  
Cordelia Ann Stephens  
John and Meredith Stephens  
Brent Stephens  
John Stephens et al  
Summer Stone  
George Story  
Cathy Suematsu  
Ann Taber  
Greta and Harmon Taber

Ray and Betty Taber  
Ruth Taber  
Brady Tharp  
Lisa Thomas  
Don and Merriel Tompkins  
Matt Trask  
Kevin Trigales  
Paul Turnbull  
Fred and Mary Vanucci  
Danny Vigil  
Kin Soi Voong  
Helen Harris Voss  
Barry and Kristy Wells  
Lloyd and Ann Wendland  
Barney Whitfield  
Nancy Wilkison  
Paul Williams  
John Wilson  
Theresa Wright  
Muriel J. Yates  
Veon D. Zentner

**Businesses/Groups/Agencies**

Agriculture Industries  
Blacksmith Homes LLC  
Bola Markets  
Cache Canyon Whitewater River Trips  
Cache Creek Citizen's Advisory  
Cache Creek Conservancy  
California Association of Bicycling  
Organizations  
California Department of Conservation  
California Department of Fire  
California Department of Fish and Game  
California Department of Forestry  
California Department of Toxic Substances  
California Department of Water Resources  
Capay Valley Vision  
Capay Valley Coalition  
Central Valley Regional Water Quality Control  
Board  
Capay Ranch Inc  
Chandon Ranch Partnership  
Chickohominy Lands Inc.  
Cortina Rancheria  
Davis Bike Club  
Dunmore Communities  
Emerald Homes LLC  
Esparto Chamber of Commerce  
Esparto Citizens Advisory Committee  
Esparto Community Service District  
Esparto District Chamber of Commerce  
Esparto Fire Department

*State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration*

Esparto General Plan Advisory Committee  
Esparto Regional Library  
Esparto Unified School District  
Fully Belly Farm  
Giumarra Farms  
Gold Oak Ranch  
Gordon Farms  
Guinda Community Methodist Church  
Guinda Grange  
Herbst Mfg Inc  
Hwy 16 Safe Communities Coalition  
JB Communications  
John Deterding Company  
Kathyanna Ranch LLC  
KS Farla LLC  
Landpeople  
Law Offices of Donald B. Mooney  
Law Offices of J. William Yates  
Lehman English Kelly & O'Keefe  
M & P Fam Ltd Partnership  
Madison Community LLC  
Madison Community Services District  
Madison Fire Protection District  
Madison Hwy 16 LLC  
Madison Migrant Housing Center  
Madison Service District  
Manas Ranch Trust  
MIG Berkeley  
Native American Heritage Commission  
Natural Resource Conservation Service  
Nishi Farms Inc.  
Rumsey Farms  
Rumsey Improvement Club  
Rumsey Indian Rancheria Of Wintun  
Rumsey Rancheria Fire Department  
Ryder Homes  
SACOG  
Sacramento Wheelmen  
Sagara Mas & Sons Inc.  
Sal & Al Giumarra Farms  
Sayr Industries

Sierra Club - Yoloano Group  
SLH Holdings Inc.  
Solano Concrete Co.  
St. Martin's Mission  
State Office of Historic Preservation  
State Reclamation Board  
State Water Resources Control Board  
Syar Industries Inc.  
Taylor Ranch  
Tim McIsaac Agriculture Industries  
Tuttle Charles W Jr. Trust  
Triple Creek Farms  
United States Post Office  
US Army Corps of Engineers  
US Environmental Protection Agency  
US Fish and Wildlife Service  
Warner ME  
Water Resources Association of Yolo County  
Western Development  
Whitewater Adventures  
Wintun Environmental Protection Agency  
Yolo Basin Foundation  
Yolo County  
Yolo County Agricultural Commissioner  
Yolo County Board of Supervisors  
Yolo County Farm Bureau  
Yolo County Flood Control & Water  
Conservation District  
Yolo County Historical Society  
Yolo County Housing Authority  
Yolo County LAFCO  
Yolo County Library  
Yolo County Planning & Public Works  
Yolo County Clerk-Recorder  
Yolo County Resource Conservation District  
Yolo County Sheriff Dept.  
Yolo County Transportation District (Yolo Bus)  
Yolo Farm Bureau  
Yolo Land Trust  
Yolo Ranches Stephens  
Yolo-Solano Air Quality Management District

## Appendix A. CEQA Checklist

### CEQA Environmental Checklist

03-YOL-16

20.5/31.6

03-0C470

03-0000-0015

Dist.-Co.-Rte.

P.M/P.M.

E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>I. AESTHETICS:</b> Would the project:   |                                      |  |                                     |                                     |
| a) Have a substantial adverse effect on a scenic vista   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b><i>"No Impact", "Less Than Significant Impact" and "Less Than Significant with Mitigation" determinations is based on the project scope, field reviews, and the Visual Impact Assessment (VIA)</i></b>  |                                      |  |                                     |                                     |
| <b>II. AGRICULTURE AND FOREST RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: |                                      |  |                                     |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



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|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope and field reviews.***

**III. AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

|  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope, field reviews, and the Air Quality Report.***

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|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>IV. BIOLOGICAL RESOURCES:</b> Would the project:  |                                      |  |                                     |                                     |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b><i>“No Impact” and “Less Than Significant Impact” and “Less Than Significant With Mitigation” determinations are based on the project scope, field reviews, and the biological reports.</i></b>   |                                      |  |                                     |                                     |

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|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>V. CULTURAL RESOURCES:</b> Would the project:   |                                      |  |                                     |                                     |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b><i>“No Impact” and “Less Than Significant Impact” determinations are based on the project scope, field reviews, and the Cultural Resources Report.</i></b>  |                                      |  |                                     |                                     |
| <b>VI. GEOLOGY AND SOILS:</b> Would the project:   |                                      |  |                                     |                                     |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| v) Landslides?   |                                      |  |                                     |                                     |
| b) Result in substantial soil erosion or the loss of topsoil?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

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|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

***“No Impact” and “Less Than Significant” determinations are based on the project scope and field reviews.***

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope, field reviews and the Initial Site Assessment (ISA).***

**IX. HYDROLOGY AND WATER QUALITY:** Would the project:

|   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

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|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?                  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?                    | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| j) Inundation by seiche, tsunami, or mudflow  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope, field reviews and the water quality report.***

**X. LAND USE AND PLANNING:** Would the project:

|   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope and field reviews.***

**XI. MINERAL RESOURCES:** Would the project:

|  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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|---|--------------------------------------|--|------------------------------------|-------------------------------------|
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

***“No Impact” determinations are based on the project scope and field reviews.***

**XII. NOISE:** Would the project result in:

|   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope and field reviews.***

**XIII. POPULATION AND HOUSING:** Would the project:

|   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

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|--------------------------------------|--|------------------------------------|--------------|
|--------------------------------------|--|------------------------------------|--------------|

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope and field reviews.***

**XIV. PUBLIC SERVICES:**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

|                          |                          |                          |                                     |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| Fire protection?         | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Police protection?       | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Schools?                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Parks?                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***“No Impact” and “Less Than Significant Impact” determinations are based on the project scope and field reviews.***

**XV. RECREATION:**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

***“No Impact” determination is based on the project scope and field reviews.***



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|--|--------------------------------------|--|------------------------------------|--------------|
|--|--------------------------------------|--|------------------------------------|--------------|

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

|   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

***“No Impact” and “Less Than Significant Impact” determinations is based on the project scope and field reviews.***

**XVII. UTILITIES AND SERVICE SYSTEMS:** Would the project:

|  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?          | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

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|---|--------------------------------------|--|------------------------------------|-------------------------------------|
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| <b><i>"No Impact" and "Less Than Significant Impact" determinations are based on the project scope and field reviews.</i></b>   |                                      |  |                                    |                                     |

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

|  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

## Appendix B. Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

### DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
P.O. BOX 942873, MS-49  
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March 2013

### NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: [http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A blue ink signature of Malcolm Dougherty, written in a cursive style.

MALCOLM DOUGHERTY  
Director

*"Caltrans improves mobility across California"*

## Appendix C. Summary of Relocation Benefits

### California Department of Transportation Relocation Assistance Program

#### **DECLARATION OF POLICY**

“The purpose of this title is to establish a **uniform policy for fair and equitable treatment** of persons displaced as a result of federal and federally assisted programs in order that such persons **shall not suffer disproportionate injuries** as a result of programs designed for the benefit of the public as a whole.”

The Fifth Amendment to the U.S. Constitution states, “No Person shall...be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation.” The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 CFR Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

#### **FAIR HOUSING**

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state’s relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Caltrans relocation advisor.

#### **RELOCATION ASSISTANCE ADVISORY SERVICES**

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States.

Caltrans will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe and sanitary.” Nonresidential displacees will receive information on comparable properties for lease or purchase (for business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state assisted housing programs and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe and sanitary” replacement dwelling, available on the market, is offered to them by Caltrans.

### ***RESIDENTIAL RELOCATION PAYMENTS***

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

#### ***Moving Costs***

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

#### ***Purchase Differential***

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An

interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used (see the explanation of the Last Resort Housing Program below).

#### *Rent Differential*

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by Caltrans prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when Caltrans determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the *Down Payment* section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is \$5,250. If the total entitlement for rent supplement exceeds \$5,250, the Last Resort Housing Program will be used.

To receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

#### *Down Payment*

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans’ initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a “decent, safe and sanitary” replacement dwelling will apply.

#### *Last Resort Housing*

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$22,500 and \$5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, Caltrans will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced.

- Specific arrangements needed to accommodate any family member(s) with special needs.
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family.
- Preferences in area of relocation.
- Location of employment or school.

### ***NONRESIDENTIAL RELOCATION ASSISTANCE***

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

#### ***Moving Expenses***

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the right-of-way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.
- Expenses related to searching for a new business site, up to \$2,500, for reasonable expenses actually incurred.

#### ***Reestablishment Expenses***

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

#### ***Fixed In Lieu Payment***

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 nor more than \$20,000.

### **ADDITIONAL INFORMATION**

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization that has been refused a relocation payment by the Caltrans relocation advisor or believes that the payment(s) offered by the agency are inadequate may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a public project. A list of ineligible expenses can be obtained from Caltrans Right-of-Way. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.



## **Appendix D. Avoidance, Minimization and/or Mitigation Summary**

### **Avoidance / Minimization Measures**

#### Relocations and Real Property Acquisition

- Following project approval, Caltrans Right of Way Staff would coordinate with affected property owners concerning compensation for loss of property.
- A Relocation Agent would contact all displacees after final environmental approval. The Relocation Agent would ensure that eligible displacees receive their full relocation benefits, including advisory assistance, and that all activities will be conducted in accordance the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (see Appendix C). Relocation resources shall be available to all displacees free of discrimination. At the time of the first written offer to purchase, owner occupants are given a detailed explanation of Caltrans' Relocation Program and Services.

#### Utilities/Emergency Services

- All emergency response units in the project area would be notified of the project construction schedule and would have access to SR-16 throughout the construction period.

#### Traffic/Transportation

- Restrictions on when lanes may be closed.
- Public notices and press releases provided in local newspapers before major stage or traffic shifts.
- A Construction Zone Enhanced Enforcement Program (COZEEP) with the CHP during major construction that affects traffic, such as stage changes and traffic shifts.
- Changeable message signs to alert motorists to unusual or new conditions and any delays that develop

#### Visual/Aesthetics

- The application of erosion control to all disturbed areas would be required. These areas shall be returned to their preconstruction conditions once construction is completed. The erosion control shall consist of a seed mix of grasses and forbs that are native to the area.
- If Option B is built (part of location 1), the Caltrans Landscape Architecture staff would design a landscape and erosion control plan.
- Tree removal that occurs along or near residential development would be replanted in kind with the type of trees and vegetation that has been removed. This would provide screening for residences to help reduce light and glare, and to help reestablish and maintain the rural feel of the surrounding area.
- Similar ornamental variety or native trees shall replace large trees that need to be removed due to the construction activities so long as they do not interfere with roadway functions or utilities. Re-vegetation within clear recovery zones would consist of native grasses and shrubs to facilitate sight distance requirements, reduction of obstacles and erosion concerns.

#### Cultural Resources

- The portions of the cultural sites outside the ADI would be protected against inadvertent damage during project construction through the establishment of ESA and preparation of an ESA Action Plan. The ESA Action Plan will ensure proper implementation of Section 106 Programmatic Agreement Stipulation X, and to ensure compliance with CEQA, and for state-owned historic properties, PRC Section §5024.
- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the district archaeologist so that they may work with the MLD on the

respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

#### Hazardous Waste/Materials

- Any R/W that is going to be acquired would be tested for potential soil contamination prior to acquisition. Soils with non-hazardous levels of ADL may be reused within the project limits. Soils with hazardous levels of ADL would be disposed of at an appropriate landfill.
- SSP 15-1.03B regarding the removal of white and yellow thermoplastic paint striping is required.

#### Natural Communities

- Areas of Valley oak riparian habitat within the project area that are not directly affected would be designated as ESAs on the project plans and in the project avoidance specifications. The boundaries of the ESA would be clearly marked in the field by the installation of a temporary fence. ESAs would be implemented as a first order of work and will remain in place until all construction activities are complete.
- Removal of native vegetation would be confined to the minimal area necessary to facilitate construction activities.

#### Wetlands and Other Waters

- Where working areas encroach on live or dry streams, or wetlands, RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems would be constructed and maintained between working areas and streams and wetlands. During construction of the barriers, discharge of sediment into streams will be held to a minimum. Discharge would be contained through the use RWQCB-approved measures to keep sediment from entering protected waters.
- Oily or greasy substances originating from the contractor's operations would not be allowed to enter or be placed where they would later enter tributary waters.
- Asphalt concrete would not be allowed to enter tributary waters.
- Wetlands and other waters would be delineated as ESAs on the project plans and in the project specifications. The boundaries of the ESA would be clearly marked in the field by the installation of a temporary fence. ESAs would be implemented as a first order of work and would remain in place until all construction activities are complete.

## Animal Species

### Migratory Birds-Vegetation Nesting Species

- Removal of native vegetation would be confined to the minimal area necessary to facilitate construction activities.
- Vegetation removal on the project site would be conducted between September 1<sup>st</sup> and February 14<sup>th</sup>, outside of the nesting season (generally) for most migratory bird species in the project area. If vegetation removal must take place outside of this period, a qualified biologist would conduct pre-construction surveys for active bird nests within 0.25 mile of all construction activities. These surveys would be conducted no less than 14 days and no more than 30 days before the beginning of construction. If construction activities are delayed or suspended for more than 30 days after the pre-construction survey, the areas will be resurveyed. If no active bird nests are found, no further measures are necessary. If active bird nests are identified, construction activities within 500 feet of these areas would be postponed until USFWS and/or CDFW have been consulted, or after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. No known active nests would be disturbed without permit or other authorization from the USFWS and/or the CDFW.

### Tricolored Blackbird

- The avoidance and minimization measures for migratory birds would be applied to minimize the potential to impact the tricolored blackbird that may utilize potential foraging habitat within project limits prior to construction. If this species is observed, appropriate resource agencies would be coordinated with.

### Migratory Birds-Structure Nesting/Roosting Species/Bats

- To avoid potential impacts to nesting swallows or roosting bats, exclusionary devices would be installed where feasible to prevent nesting or roosting on box culverts and bridges within the project area. The installation of the exclusionary devices would occur during the fall or winter after fledging and before initiation of breeding activities (between September 1<sup>st</sup> and February 14<sup>th</sup>). A biological monitor would periodically inspect the exclusionary netting to ensure its effectiveness.
- Nest removal is another method of preventing structure nesting/roosting species. CDFW considers February 15 to September 1 to be the swallow nesting season. Old nests or nests under construction would be washed down with water or knocked

down with a pole. Swallows are strongly attracted to old nests or to the remnants of deteriorated nests, so all traces of mud would need to be removed. Because cliff swallows persistently rebuild nests for most of the breeding season, the nest removal method will require many consecutive days to prevent them from nesting using this method.

#### Burrowing Owl

- The avoidance and minimization measures for migratory birds would be applied to minimize the potential to impact the burrowing owls that may inhabit the project area prior to construction.

#### Threatened and Endangered Species

##### Valley Elderberry Longhorn Beetle (Avoidance and Minimization Measures)

- Before initiation of any vegetation removal, grading, or any other ground-disturbing activities, a qualified biologist would conduct mandatory worker awareness training for all construction personnel. The awareness training would provide information on how to avoid impacts to biological resources, particularly special-status species. The training will also inform workers of the penalties for not complying with mitigation requirements. If new construction personnel are subsequently added to the project, they too would receive the training.
- Prior to any ground-disturbing activities associated with the project, Caltrans shall install 20 feet of 4-foot-tall temporary, plastic mesh construction ESA fence where possible, from the driplines of elderberry shrubs that are not to be removed. The fencing is intended to prevent encroachment by construction vehicles and personnel. The exact location of the fencing would be determined by a qualified biologist, with the goal of protecting VELB habitat. The fencing would be strung tightly on posts set at a maximum interval of 10 feet. The fencing would be installed in a way that prevents equipment from enlarging the work area beyond what is necessary to complete the work. The fencing would be checked and maintained weekly until all construction is completed.
- A sign would mark this buffer zone and state the following 'This is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment'. The fencing and a note reflecting this condition would be shown on the construction plans. Signs would be legible from a distance of 20 feet and must be maintained for the duration of construction.

Giant Garter Snake (Avoidance and Minimization Measures)

- Construction activity within suitable habitat would be conducted between May 1 and October 1 to minimize impacts to this species. This is the active period for giant garter snakes and thus direct mortality is lessened because snakes are expected to actively move and avoid danger.
- Clearing would be confined to the minimal area necessary to facilitate construction activities. Fencing and signs would designate avoided giant garter snake habitat within or adjacent to the project area as an ESA.
- Construction personnel would receive USFWS-approved worker environmental awareness training. This training instructs workers to recognize giant garter snakes and their habitat(s).
- Twenty-four hours prior to construction activities, the project area would be surveyed for GGS. Surveys of the project area would be repeated if a two-week or greater lapse in construction activity occurs. If a GGS is encountered during construction, activities will cease until appropriate corrective measures have been completed or it has been determined that the giant garter snake will not be harmed. Any sightings and any incidental take would be reported to the USFWS and CDFW immediately by telephone at (916) 414-6600.
- Any dewatered habitat shall remain dry for at least 15 consecutive days after April 15<sup>th</sup> and prior to excavating or filling of the dewatered habitat.
- After completion of construction activities, any temporary fill and construction debris would be removed and, wherever feasible, disturbed areas restored to pre-project conditions. Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

Swainson's Hawk (Avoidance and Minimization Measures)

- If there are any new nest trees within the project limits prior to construction, they would be designated as ESAs and would be delineated on the project plans and in the project specifications. The boundaries of the ESA will be clearly marked in the field by the installation of a temporary fence. ESAs would be implemented as a first order of work and will remain in place until all construction activities are complete.
- Before initiation of any vegetation removal, grading, or any other ground-disturbing activities, a qualified biologist would conduct mandatory worker awareness training for all construction personnel. The awareness training would provide information on how to avoid impacts to biological resources, particularly special-status species. The training would also inform workers of the penalties for not complying with mitigation requirements. If new construction personnel are subsequently added to the project, they too would receive the training.

- Removal of native vegetation would be confined to the minimal area necessary to facilitate construction activities.
- The avoidance and minimization measures (tree removal during non-nesting season) for migratory birds would be applied to minimize the potential to impact nesting Swainson's hawk.
- Monitoring for Swainson's hawk would take place as appropriate during construction from March to September.

Tricolored Blackbird (Avoidance and Minimization Measures)

- The avoidance and minimization measures for migratory birds would be applied to minimize the potential to impact the tricolored blackbird. If this species is observed, appropriate resource agencies would be coordinated with.

Water Quality and Storm Water Runoff

- Prevent Downstream Erosion – design of drainage facilities to avoid causing or contributing to downstream erosion. Drainage outfalls, when appropriate, would discharge to suitable control measures.
- Stabilize Disturbed Soil Areas – design would incorporate stabilization of disturbed areas (when appropriate) with seeding, vegetative, or other types of cover.
- Maximize Existing Vegetative Surfaces – design would limit footprints of cuts and fills to minimize removal of existing vegetation.
- This project would incorporate treatment BMPs to the maximum extent practicable with an emphasis on biofiltration swales and detention basins.
- The contractor will be responsible for implementing stormwater BMPs pursuant to the General Construction Permit (GCP) and the SWPPP required by the permit to ensure that erosion and run-off would not contribute to additional pollutants in surface water bodies in the vicinity of this project. Implementing aggressive BMPs would minimize soil transportation during construction. Aggressive and redundant placement of BMPs in areas that are tributaries to Cache Creek, especially at creek crossings, or in areas with elevated levels of mercury would provide additional protection.
- No soil disturbing work would be performed during the wet season (October 15<sup>th</sup> – April 15<sup>th</sup>). This will reduce the likelihood of discharges from the site.

- This would be a multi-year project and it would be necessary to ensure that BMPs have been fully implemented during the wet season to stabilize slopes and prevent erosion, especially in the vicinity of surface water bodies.
- Clearing and grubbing (digging up roots and stumps) would be done in the dry months of the year (April 15<sup>th</sup> – October 15<sup>th</sup>) to reduce the likelihood of erosion occurring during and immediately following construction of the project. Revegetation of disturbed surfaces would be in accordance with plans developed by a Caltrans Landscape Architect. Preservation of existing vegetation to provide erosion and sediment control benefits would be maximized on this project. Contract plans would delineate ESAs to help preserve existing vegetation.
- The placement of Rock Slope Protection (RSP) to currently unstable slopes, as well as the addition of detention basins, swales, and other stormwater design improvements would be implemented into this project to ultimately improve the water quality of the creeks within the project limits.
- The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board.
- The contractor would be required to prepare a SWPPP containing effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls. It is generally accepted that practices that perform well by themselves can be complemented by other practices to raise the collective level of erosion control effectiveness and sediment retention.
- This project would have at least one acre of Disturbed Soil Area (DSA) and is subject to the Construction General Permit. A Notification of Construction (NOC) would be submitted to the CVRWQCB Sacramento Office at least 30 days prior to construction.
- Standard Special Provision (SSP) 07-345 is a set of specifications used for projects that disturb more than one acre of soil. SSP 07-345 would be included in the construction specifications for this project and would clearly outline the contractor's responsibilities with respect to preparation and implementation of the SWPPP.
- In accordance with the MS4 NPDES general permit as directed by Caltrans SWMP and the Project Planning and Design Guide (PPDG) an evaluation of the project



using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project. This evaluation has been conducted through the completion of a SWDR.

- The project is proposing to widen the existing channel bottom of the South Fork Willow Slough to provide attenuation for peak discharges. This work may require the dewatering of this irrigation ditch. Irrigation water is a conditionally exempted discharge under the Caltrans permit and is not prohibited if identified as not being sources of pollutants to receiving waters or if appropriate control measures are developed and implemented under the SWMP to minimize the adverse impacts of such sources. The contractor would coordinate with the CVRWQCB through the Caltrans NPDES coordinator to ensure any dewatering performed during this proposed project conforms to these (NPDES permit) provisions.
- The proposed project would utilize and enhance existing natural biostrips and bioswales whenever possible. Biostrips would be incorporated into the roadway design throughout the project limits wherever gentle slopes allow. Bioswales would be incorporated into ditch design wherever the longitudinal slope, soil conditions, proper shape, and vegetation can be obtained.

#### Air Quality

- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

#### Noise

- Noise levels would not exceed 86 dBA LMax at 50 feet from the job site activities from 9 p.m. to 6 a.m.
- Equipment would include an internal combustion engine with manufacturer-recommended muffler.
- An internal combustion engine would not be operated on the job site without the appropriate muffler.

## **Mitigation Measures**

### Visual/Aesthetics

- If Option “A” (part of location 1) is built, Caltrans would design and prepare a re-vegetation plan (RP) which would serve to minimize impacts. The plan would be jointly prepared by a landscape architect and biologist. The RP would include measures to replace existing native riparian vegetation that will be removed or indirectly affected by construction of the proposed project. The RP would include planting concepts, specifications, riparian restoration and wetland planting plans, plant species, sizes and quantities. The Caltrans biologist would take the lead on the RP with the help of Landscape Architecture staff to design a conceptual plan for the RP.

### Natural Communities

- Mitigation to restore Valley oak riparian habitat would be performed as identified in the Lake and Streambed Alteration Agreement in coordination with the Department of Fish and Wildlife to compensate for the loss of Valley oak riparian habitat, regulated under sections 1600-1616 of the Fish and Game Code.
- Upon completion of project construction, the loss of 76 Valley oak trees at Taylor Creek would be mitigated on-site within Caltrans right-of-way. If planting cannot be accomplished on-site due to placement of Rock Slope Protection (RSP)/Armouring along banks in stream area, or if there is a general lack of suitable planting area then offsite mitigation options will be pursued to the start of construction.
- Disturbed areas would be re-contoured to the natural grade and re-vegetated with Valley oak seedlings and other native species appropriate for the site conditions.

### Wetlands and Other Waters

- If necessary, mitigation for jurisdictional wetlands and other waters of the U.S. would be performed to achieve no net loss of the functions and values within the study area in accordance with the USACE Habitat Mitigation and Monitoring Proposal Guidelines (1991) and the Guidelines for Monitoring Riparian Mitigation (1994).
- The proposed project would permanently impact approximately 0.04 acre of potentially jurisdictional wetlands which would be mitigated on-site at a 1:1 ratio by creating wetlands as part of the pending consultation with USACE. The proposed project would also have indirect impacts to approximately 0.28 acre of potentially jurisdictional wetlands of the US, which would be mitigated on-site at a 1:1 ratio by restoring wetlands as part of the pending consultation with USACE.

- The proposed project would permanently impact approximately 0.98 acre of other waters of the U.S., and approximately 1.43 acres of waters of the State in Taylor Creek and a portion of South Fork Willow Slough, which would be mitigated on-site at a 1:1 ratio by creating vegetated buffers along the other impacted waterways in the study area. Temporary disturbance to 2.75 acres of jurisdictional other waters of the U.S. and waters of the State would also occur and those impacts would be mitigated on-site at a 1:1 ratio by restoring vegetated buffers along disturbed waterways.

#### Threatened and Endangered Species

##### Valley Elderberry Longhorn Beetle (Mitigation Measures)

- Caltrans would purchase credits sufficient to compensate for the planting of 250 elderberry shrubs, and an additional 290 associated native plantings from a USFWS approved conservation bank that services the proposed project area. Credits are purchased via VELB “units.” Each unit translates to 10 credits, five for seedlings and five for associated species. Eighty units from a bank would compensate for 800 seedlings and associated species. See table below for mitigation ratios.

#### Compensatory Mitigation to Offset Project Impacts to Suitable VELB habitat

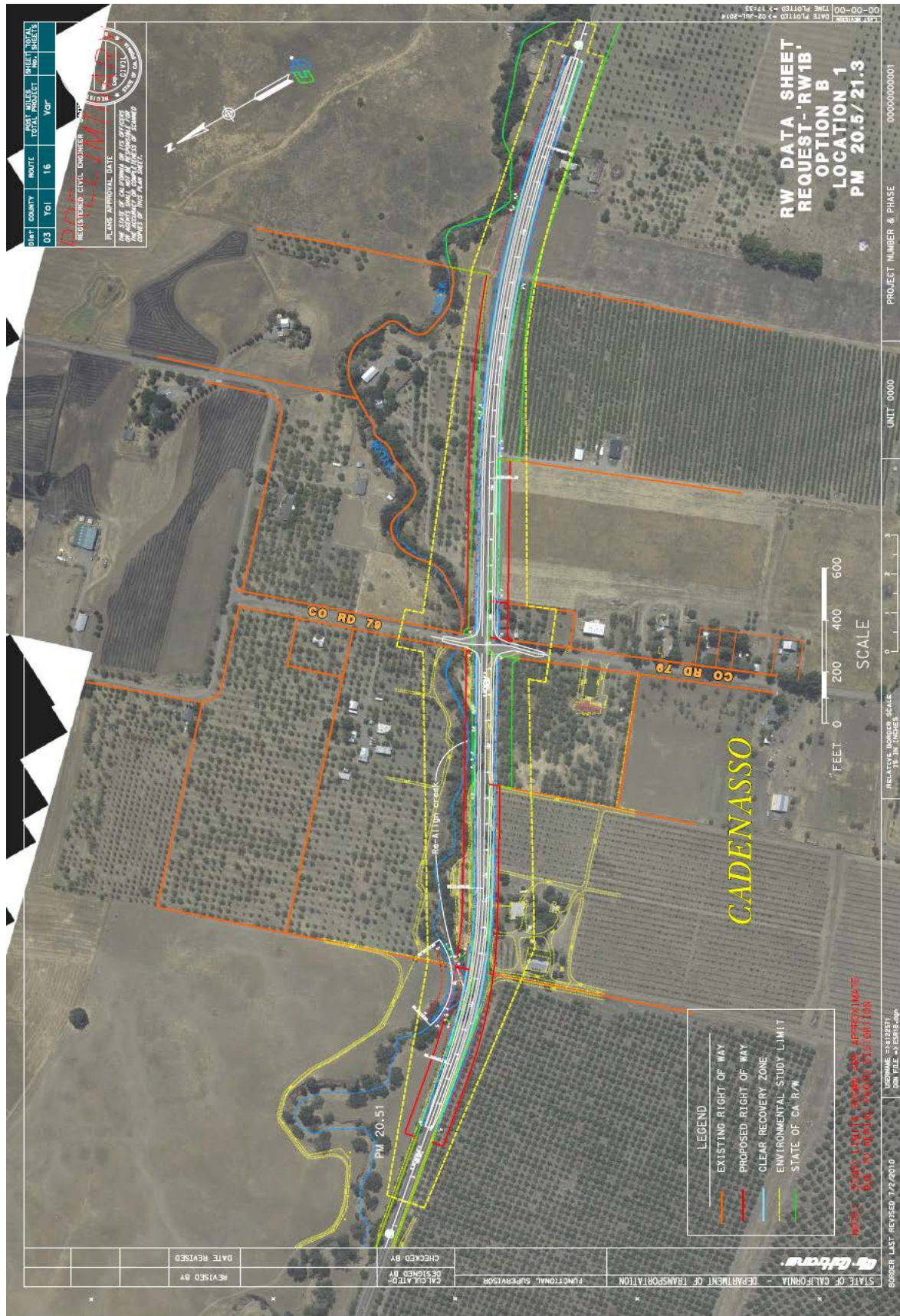
| Location   | Stem diameter | Number of Stems Impacted | Exit Holes Present on Shrub (Y/N) | Elderberry Seedling Ratio | Elderberry Seedling Plantings | Associated Native Plant Ratio | Associated Native Plantings |
|--|---------------|--------------------------|-----------------------------------|---------------------------|-------------------------------|-------------------------------|-----------------------------|
| Non-Riparian   | 1"-3"         | 4                        | No                                | 1:1                       | 4                             | 1:1                           | 4                           |
|  |               | 0                        | Yes                               | 2:1                       | 0                             | 2:1                           | 0                           |
|  | 3"-5"         | 0                        | No                                | 2:1                       | 0                             | 1:1                           | 0                           |
|  |               | 0                        | Yes                               | 4:1                       | 0                             | 2:1                           | 0                           |
|  | > 5"          | 0                        | No                                | 3:1                       | 0                             | 1:1                           | 0                           |
|  |               | 0                        | Yes                               | 6:1                       | 0                             | 2:1                           | 0                           |
| Riparian   | 1"-3"         | 39                       | No                                | 2:1                       | 78                            | 1:1                           | 78                          |
|  |               | 1                        | Yes                               | 4:1                       | 4                             | 2:1                           | 8                           |
|  | 3"-5"         | 20                       | No                                | 3:1                       | 60                            | 1:1                           | 60                          |
|  |               | 2                        | Yes                               | 6:1                       | 12                            | 2:1                           | 24                          |
|  | > 5"          | 15                       | No                                | 4:1                       | 68                            | 1:1                           | 68                          |
|  |               | 3                        | Yes                               | 8:1                       | 24                            | 2:1                           | 48                          |
| Total Elderberry and Associated Plant Species Plantings Needed toward Conservation of the VELB |               |                          |                                   |                           | 250                           |                               | 290                         |

Giant Garter Snake (Mitigation Measures)

- Caltrans would restore all 0.61 acre of GGS habitat through the onsite relocation, slope improvement and revegetation of South Fork Willow Slough and irrigation ditch. In addition, a one-year monitoring report showing pre- and post-project area photos will be submitted to USFWS and/or CDFW one year from the restoration implementation. The restoration and monitoring would follow USFWS Guidelines. If the restoration is unsuccessful, as determined by USFWS, consultation would be reinitiated and would include the appropriate actions necessary to fulfill the success criteria for restoration of temporary disturbance.









*State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration*



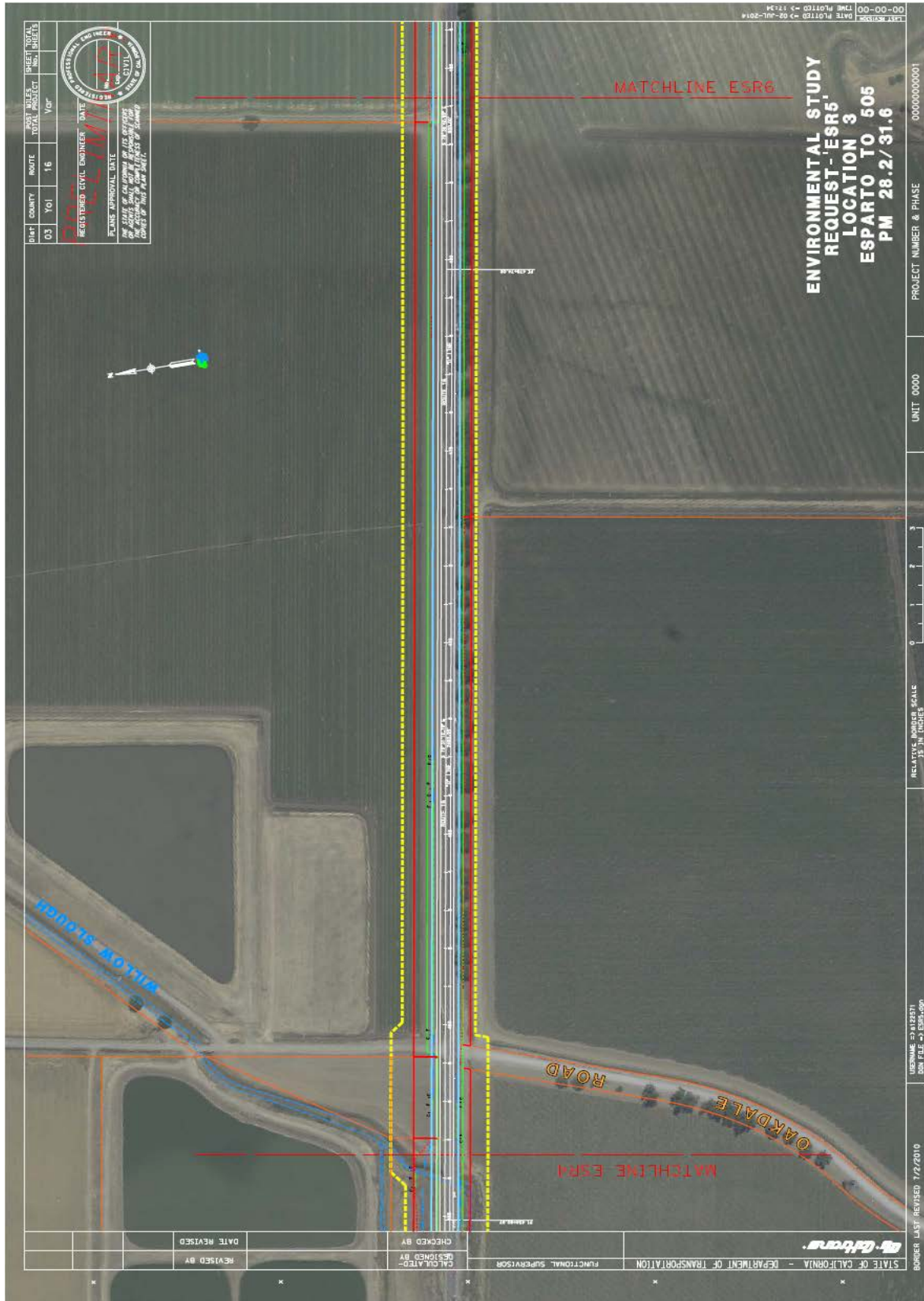
State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration





[illegible]

State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration



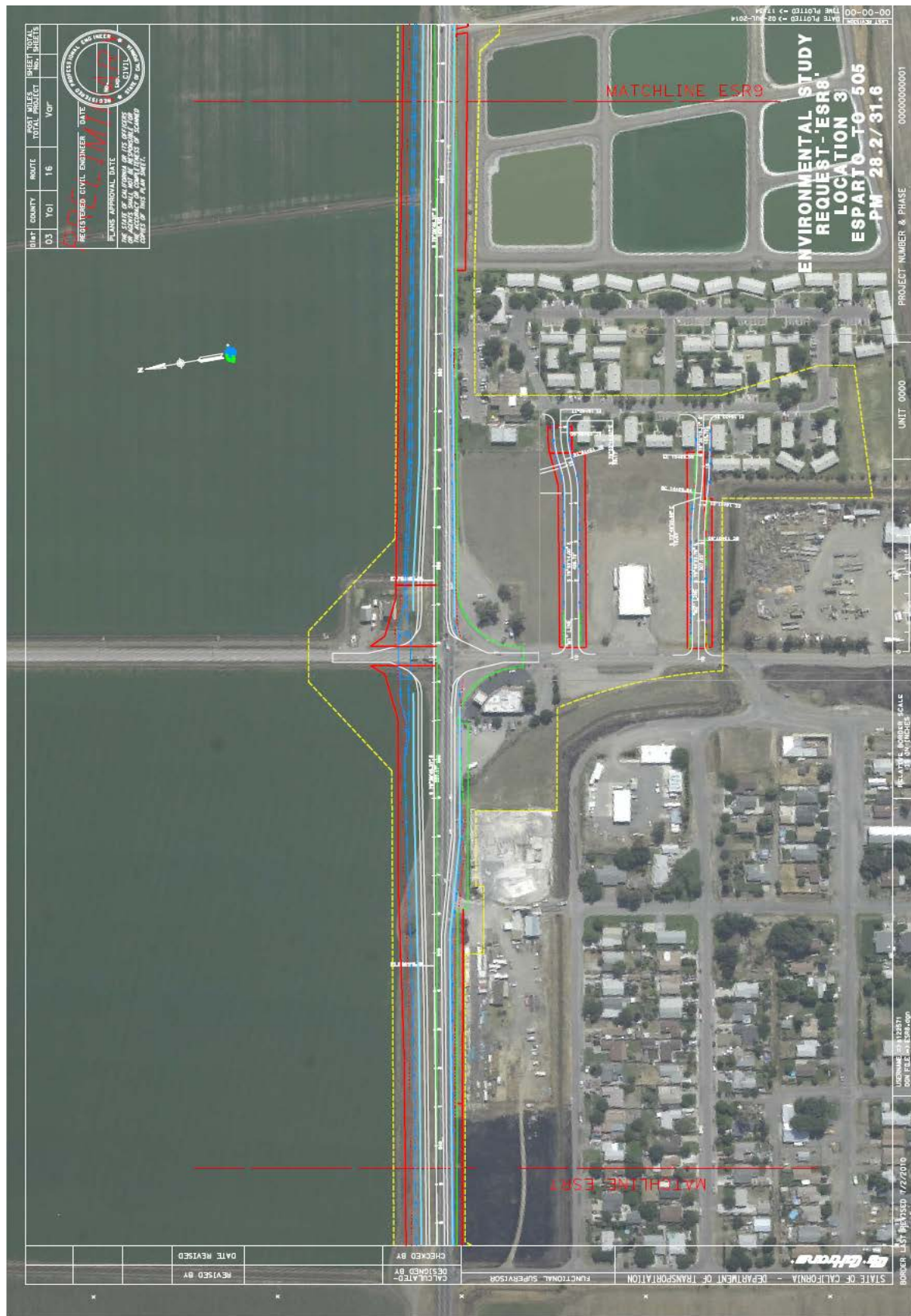


*State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration*

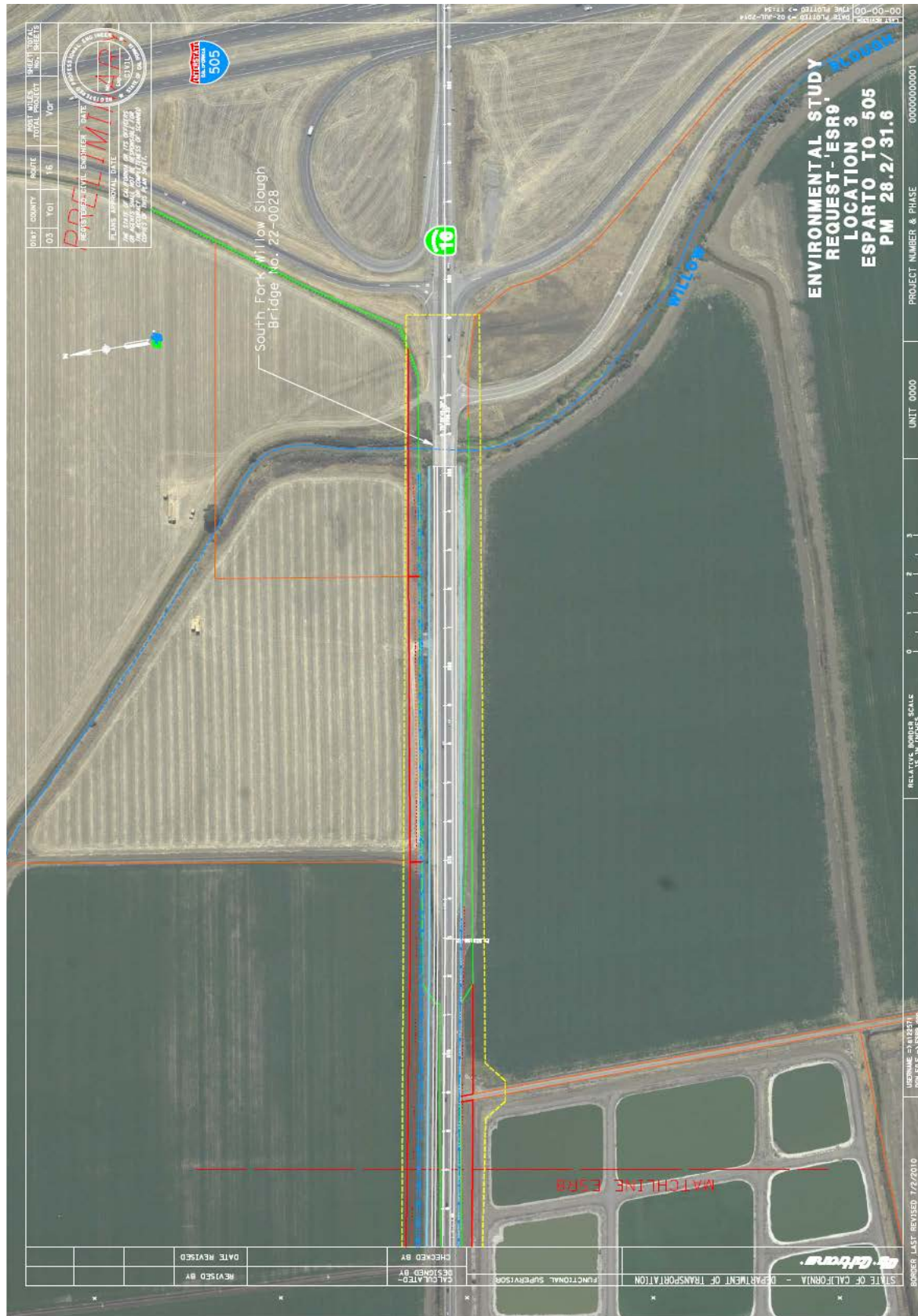








State Route 16 Safety Improvement Project Initial Study with Proposed Mitigated Negative Declaration





## Appendix F. Department of Conservation Notification of Farmland Take Letter

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMOND G. BROWN JR., Governor

**DEPARTMENT OF TRANSPORTATION**  
ENVIRONMENTAL SERVICES BRANCH M1  
DISTRICT 3, 705 B Street  
MARYSVILLE, CA 95901  
PHONE (530) 741-4276  
FAX (530) 741-4457  
TTY 711



*Flex your power!  
Be energy efficient!*

June 5, 2014

California Department of Conservation  
801 K Street  
Sacramento, CA 95814-3528

YOL-16 PM 20.5/31.6  
EA 03-0C4700  
EFIS 03-0000-0015  
YOL-16 Safety Improvement Project

Dear Sir or Madam,

In accordance with Government Code Section 51291(b), this letter is to serve as notification of a take and easement of farmland, including some Williamson Act contracted land, for a proposed highway safety improvement project in Yolo County. The project proposes to the safety at three separate locations along YOL-16 (PM 20.5/21.3, PM 23.2/23.5 and at PM 28.2/31.6) in Yolo County. The locations are as follows (limits are approximate). The scope of work would include:

Location 1 - County Road (Co Rd) 79, from 0.35 miles west of Co Rd 79 to 0.40 miles east of Co Rd 79, postmiles (PM) 20.5/21.3 (0.8 miles)

- Adding a left turn pocket for County Road 79
- Straightening 2 horizontal curves (increasing the curve radius)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. Clear Recovery Zone (CRZ)\*
- Additional work described in Option A or Option B
- Drainage work as needed

Option A work

- Shifting the alignment north to avoid a house

Option B work

- Shifting the alignment south to reduce impacts to Taylor Creek

Location 2 – West of Co Rd 82B, from 0.34 miles west of Co Rd 82B to 200 ft. west of Co Rd 82B, PM 23.2/23.5 (0.3 miles)

- Straightening the horizontal curve (increasing the curve radius)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. CRZ
- Drainage work as needed

Location 3 – Esparto to Interstate (I)-505, from 350 ft. west of Co Rd 21A to South Fork Willow Slough, PM 28.2/31.6 (3.4 miles)

Esparto to Madison

- Roundabout at Co Rd 21A (Optional)

*"Caltrans improves mobility across California"*

California Department of Conservation  
June 5, 2014  
Page 2

- Shifting the alignment to the north (the roadway profile will not be raised)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. CRZ
- Drainage work as needed

Madison to I-505

- Shifting the alignment to the north (the roadway profile will not be raised)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. CRZ
- Adding a roundabout at Co Rd 89 or widening and adding a traffic signal
- Adding a two way left turn lane (TWLTL) from I-505 through to Tutt St.
- Relocating the Madison Migrant Center driveway to Co. Rd 89 (Optional)
- Drainage work as needed

The location of this project was not based on consideration of the lower cost of acquiring land in an agricultural preserve (§51292(a)). There is no other land within or outside the preserve on which it is reasonably feasible to locate this project (§51292(a)(b)). The location was chosen because of a high number of collisions in the project area. In recent years the traffic volumes on SR 16 have increased within the project limits, along with an increase in collisions that are above the statewide average for a similar facility. Farmland, including some Williamson contracted land, was identified for the take of this section of SR 16 due to the fact that these are the locations where the collisions are occurring and these parcels are the only parcels on which construction can occur. The location of this project was not based on consideration of the lower cost of acquiring land in an agricultural preserve (§51292(a)). There is no other land within or outside the preserve on which it is reasonably feasible to locate this project (§51292(a)(b)).

Several maps are included in this packet. Map 1 is the general project location map. Location maps 1-3 are the project layout maps that shows the highlighted Williamson contracted Agricultural Land Parcels that will be impacted by the proposed project. In addition to the maps I have included a Farmland APN Table which lists the APN's, farmland, including Williamson acreage and the amount of acreage that is proposed for take. The total amount of farmland, including Williamson, that will be impacted is 30.24 acres. Please note that there are various parcels which will be used for drainage easements only and will require no take. Those parcels are not highlighted on the maps.

We are requesting your response to Parts II, IV, and V of the enclosed "Farmland Conversion Impact Rating" Form AD-1006.

If you have any questions, please contact Chris Carroll of my staff at (530) 741-4276 (e-mail: [Chris\\_Carroll@dot.ca.gov](mailto:Chris_Carroll@dot.ca.gov))

Sincerely,

Chris Carroll, Associate Environmental Coordinator  
North Region Office of Environmental Management, Branch M1

Attachments

*"Caltrans improves mobility across California"*



NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR



## DEPARTMENT OF CONSERVATION

*Managing California's Working Lands*

### DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEB SITE [conservation.ca.gov](http://conservation.ca.gov)

July 8, 2014

VIA EMAIL: [Chris\\_Carroll@dot.ca.gov](mailto:Chris_Carroll@dot.ca.gov)

Mr. Chris Carroll, Associate Environmental Coordinator  
Department of Transportation (Caltrans)  
North Region Office of Environmental Management, Branch M1, District 3  
703 B Street  
Marysville, CA 95901

#### NOTICE OF THE INTENTION TO ACQUIRE 30.24± ACRES FOR THE YOLO STATE ROUTE (SR) 16 SAFETY IMPROVEMENT PROJECT, YOLO COUNTY

Dear Mr. Carroll:

Thank you for your June 5, 2014 email advising the Department of Conservation (Department) Division of Land Resource Protection (Division) that Caltrans proposes to acquire portions of 27 parcels located in the project vicinity totaling 30.24± acres. Eleven parcels are indicated as land located within an agricultural preserve (see table below). The project proposes to construct safety improvements at three locations along YOL-16 (PM 20.5/21.3, PM 23.2/23.5 and 28.2/31.6), in Yolo County. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation Act and other agricultural land conservation programs. The Department offers the following comments with respect to the public acquisition procedures stated in Government Code (GC) §§51290-51295.

#### Project Description

The project as proposed is for the acquisition of 27 parcels for a highway safety improvement project in Yolo County along SR 16. Eleven parcels, highlighted in yellow are restricted by LCA contracts.

| APNs of Properties Restricted by LCA Contracts in the Project Area Intended for Acquisition |                      |                         |                  |  |
|---|----------------------|-------------------------|------------------|--|
| Parcel Number   | Current Size (Acres) | Amount Required (Acres) | Remainder Acres) | Owners   |
| 48-030-03   | 316.12               | .62                     | 315.50           | Gordon, Charles & Mary                             |
| 48-060-01   | 15.89                | 1.62/0.91               | 14.27            | Guidera, Leslie                                    |
| 48-060-14   | 8.15                 | 0.99/0.47               | 7.16             | Lee Living Trust                                   |
| 48-070-16   | 21.99                | 0.37/0.72               | 21.27            | Borg, Harry G. & Rosanna E.                        |
| 48-080-01   | 36.65                | 0.62/0.88               | 35.77            | Hy, Mowe K & Ky V                                  |
| 48-080-08   | 22.59                | 0                       | 22.59            | Morris, Robert M. and Judith L.                    |
| 48-120-10   | 309.75               | 2.49                    | 307.26           | Triple Creek Farm LLC                              |
| 49-060-11   | 326.33               | 3.59                    | 322.74           | Penrose, RE & JL Family Trust                      |
| 49-090-11   | 190.83               | 0.18                    | 190.65           | Kathyanna Ranch LCC                                |
| 49-110-005  | 13.13                | 0.10                    | 13.03            | Driver Remainder Trust & Stephens, John & Meredith |
| 49-110-009  | 104.1                | 0.58                    | 103.52           | Driver Remainder Trust & Stephens, John & Meredith |

*The Department of Conservation's mission is to balance today's needs with tomorrow's challenges and foster intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.*

Mr. Chris Carroll, Associate Environmental Coordinator  
July 8, 2014  
Page 2 of 4

| APNs of Properties located in the Project Area Intended for Acquisition Not Restricted by LCA Contracts |                      |                         |                   |                                 |
|---|----------------------|-------------------------|-------------------|---------------------------------|
| Parcel Number   | Current Size (Acres) | Amount Required (Acres) | Remainder (Acres) | Owners                          |
| 48-080-02   | 6.04                 | 0                       | 6.04              | Wright Living Trust             |
| 48-040-08   | 280.46               | 0.80                    | 279.66            | Pelayo Fernando et al.          |
| 48-120-13   | 103.4                | 2.41                    | 100.99            | Chicohominy Lands Inc.          |
| 49-120-012  | 64.45                | 2.45                    | 62.00             | Madison 155 Ranch LLC           |
| 49-060-15   | 376.02               | 5.53                    | 370.49            | Vann Brother                    |
| 49-060-07   | 142.76               | 0.47                    | 142.29            | Solano Concrete Co. Inc.        |
| 49-060-09   | 8.51                 | 0.32                    | 8.19              | Giumarra, Sal and Al Farms      |
| 49-130-006  | 19.43                | 2.38                    | 17.05             | Salvador, Conrad and Mary       |
| 49-160-05   | 6.85                 | 0.31                    | 6.54              | De La Fuente, Carlos            |
| 49-110-18   | 70.43                | 0.91                    | 69.52             | Bellvue North 250 LLC           |
| 49-100-003  | 214                  | 1.14                    | 212.86            | Bellvue North 250 LLC           |
| 49-110-021  | 108.62               | 0.52                    | 108.10            | Doris Driver Remainder Trust    |
| 49-100-001  | 148.94               | 0.65                    | 148.29            | Nishi Farms Inc.                |
| 49-100-02   | 148.94               | 0.74                    | 148.20            | Grube, Ann E.                   |
| 49-160-15   | 16.88                | 0.67                    | 16.01             | Emerald Homes LT LLC            |
| 49-160-14   | 6.80                 | 0.33                    | 6.47              | Esparto Unified School District |
| Totals  | 30.24                |                         |                   |                                 |

Caltrans intends to acquire portions of the 27 parcels because the design standards require shoulder-widening on the length of the project at three locations. The locations and scope of the work are as follows:

Location 1 – County Road (Co Rd) 79, from 0.35 miles west of Co Rd 79 to 0.40 miles east of Co Rd 79, postmiles (PM) 20.5/21.3 (0.8 miles)

- Adding a left turn pocket for County Road 79
- Straightening 2 horizontal curves (increasing the curve radius)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips on the shoulder
- Providing a 20 ft. Clear Recovery Zone (CRZ)\*
- Drainage work as needed

Option A work

- Shifting the alignment north to avoid a house

Option B work

- Shifting the alignment south to reduce impacts to Taylor Creek

Location 2 – West of Co Road 82B, from 0.34 miles west of Co Rd 82B to 200 ft. west of Co Rd 82B, PM 23.2/23.5 (0.3 miles)

- Straightening the horizontal curve (increasing the curve radius)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. CRZ
- Drainage work as needed

Location 3 – Esparto to Interstate (I)-505, from 350 ft. west of Co Rd 21A to South Fork Willow Slough PM 28.2/31.6 (3.4 miles)

Mr. Chris Carroll, Associate Environmental Coordinator  
July 8, 2014  
Page 3 of 4

Location 3 – Esparto to Interstate (I)-505, from 350 ft. west of Co Rd 21A to South Fork Willow Slough PM 28.2/31.6 (3.4 miles)

Esparto to Madison

- Roundabout at Co. Rd 21A (Optional)
- Shifting the alignment to the north (the roadway profile will not be raised)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. CRZ
- Drainage work as needed

Madison to I-505

- Shifting the alignment to the north (the roadway profile will not be raised)
- Widening and paving shoulders to 8 ft.
- Installing rumble strips in the shoulder
- Providing a 20 ft. CRZ
- Adding a roundabout at Co Rd 89 or widening and adding a traffic signal
- Adding a two way left turn lane (TWLTL) from I-505 through Tutt St.
- Relocating the Madison Migrant Center driveway to Co. Rd 89 (Optional)
- Drainage work as needed.

Required Findings

With some limited exceptions, the Land Conservation Act prohibits public agencies from locating public improvements in agricultural preserves, unless the following specific findings are made by the public agency (Government Code §51292.):

- (a) The location is not based primarily on a consideration of the lower cost of acquiring land in an agricultural preserve.
- (b) If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement.

Your letter states that the locations for the safety improvements were chosen because of a high number of collisions in the project area. In recent years the traffic volumes on SR 16 have increased within the project limits, along with an increase in collisions that are above the statewide average for a similar facility. Farmland, including some properties restricted by Land Conservation Act contracts, was identified for acquisition along this section of SR 16 because these are the locations where the collisions are occurring and the subject parcels are the only parcels on which construction can occur consistent with the design specifications of the project. The location of this project does not appear to be based on consideration of the lower cost of acquiring land in an agricultural preserve (GC §51292(a)). There is no other land within or outside of the preserve on which it is reasonably feasible to locate this project (GC §51292(b)).

Mr. Chris Carroll, Associate Environmental Coordinator  
July 8, 2014  
Page 4 of 4

Since the project involves roadway improvements and requires the acquisitions to consist of the properties located along the proposed route as specified in the project's design standards, it appears that the findings of Government Code §51292 can be made.

Eminent Domain

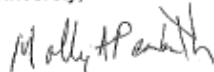
A Land Conservation Act contract is an enforceable restriction pursuant to Article XIII, §8 of the California Constitution and Government Code §51252. Pursuant to §51295, a Land Conservation Act contract may be voided through acquisition by eminent domain or in lieu of eminent domain (Code of Civil Procedure §1230.010 et seq. and Government Code §7260 et seq.). If the proposed acquisitions occur in a manner that does not void the contracts, the uses of the contracted properties will continue to be restricted by the terms of the contracts and the provisions of the Act. The Department does not provide counsel regarding eminent domain law, but encourages Caltrans to obtain legal counsel for this purpose. When the properties have been acquired by, or in lieu of eminent domain, Caltrans is requested to provide copies of the condemnation orders or the offers made to the landowners to purchase the land in lieu of eminent domain to the Department of Conservation to complete the administrative record.

Future Notifications

Please be advised that, pursuant to Government Code §51291(d), the Department and Yolo County must be notified of any proposed, significant changes to the project. If Caltrans determines not to locate the proposed public improvements on the subject properties, before returning the lands to private ownership, it must notify the Department and Yolo County, and the lands must be reenrolled in new contracts or encumbered by enforceable restrictions at least as restrictive as that provided in the Land Conservation Act (Government Code §51295). The Department and Yolo County must also be notified within 10 days when the properties are actually acquired (Government Code §51291(c)).

If you have any questions regarding these comments, please feel free to contact Jacquelyn Ramsey, Associate Environmental Planner at (916) 323-2379; email: [Jacquelyn.Ramsey@conservation.ca.gov](mailto:Jacquelyn.Ramsey@conservation.ca.gov).

Sincerely,



Molly A. Penberth, Manager  
Conservation Support Unit  
Department of Conservation  
Division of Land Resource Protection

cc: Yolo County Board of Supervisors  
Yolo County Farm Bureau

## Appendix G. AD-1006 Farmland Conversion Form

| U.S. Department of Agriculture   |  |  |   |                             |  |
|--|--|--|---|-----------------------------|--|
| FARMLAND CONVERSION IMPACT RATING  |  |  |   |                             |  |
| <b>PART I (To be completed by Federal Agency)</b>  |  |  | Date Of Land Evaluation Request <b>April 18, 2014</b>                     |                             |  |
| Name of Project <b>YOL-16 Safety Improvement Project</b>   |  |  | Federal Agency Involved <b>FHWA</b>                                       |                             |  |
| Proposed Land Use <b>Transportation</b>  |  |  | County and State <b>Yolo County, CA</b>                                   |                             |  |
| <b>PART II (To be completed by NRCS)</b>   |  |  | Date Request Received By NRCS <b>4/21/14</b>                              |                             | Person Completing Form: <b>Phil Hodan</b>  |
| Does the site contain Prime, Unique, Statewide or Local Important Farmland?<br>(If no, the FPPA does not apply - do not complete additional parts of this form)      |  |  | YES <input checked="" type="checkbox"/>                                   | NO <input type="checkbox"/> | Average Farm Size <b>488</b>   |
| Major Crop(s) <b>Processing tomatoes; wine grapes</b>  |  |  | Farmable Land In Govt. Jurisdiction<br>Acres: <b>311,304</b> % <b>48%</b> |                             | Amount of Farmland As Defined in FPPA<br>Acres: % <b>390252</b> ac <b>60.2%</b>                          |
| Name of Land Evaluation System Used<br><b>Revised Storie Index</b>   |  |  | Name of State or Local Site Assessment System                             |                             | Date Land Evaluation Returned by NRCS<br><b>6/4/2014</b>   |
| <b>PART III (To be completed by Federal Agency)</b>  |  |  | Alternative Site Rating   |                             |  |
|  |  |  | Site A  | Site B                      | Site C   |
| A. Total Acres To Be Converted Directly  |  |  | <b>30.24</b>  |                             |  |
| B. Total Acres To Be Converted Indirectly  |  |  | <b>0</b>  |                             |  |
| C. Total Acres In Site   |  |  | <b>3088.06</b>  |                             |  |
| <b>PART IV (To be completed by NRCS) Land Evaluation Information</b>   |  |  |   |                             |  |
| A. Total Acres Prime And Unique Farmland   |  |  | <b>28.0</b>   |                             |  |
| B. Total Acres Statewide Important or Local Important Farmland   |  |  | <b>2.2</b>  |                             |  |
| C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted  |  |  | <b>.008</b>   |                             |  |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value   |  |  | <b>36%</b>  |                             |  |
| <b>PART V (To be completed by NRCS) Land Evaluation Criterion</b><br>Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)                           |  |  | <b>65</b>   |                             |  |
| <b>PART VI (To be completed by Federal Agency) Site Assessment Criteria</b><br>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106) |  |  | Maximum Points  | Site A                      | Site B   |
| 1. Area In Non-urban Use   |  |  | (15)  | <b>14</b>                   |  |
| 2. Perimeter In Non-urban Use  |  |  | (10)  | <b>9</b>                    |  |
| 3. Percent Of Site Being Farmed  |  |  | (20)  | <b>20</b>                   |  |
| 4. Protection Provided By State and Local Government   |  |  | (20)  | <b>20</b>                   |  |
| 5. Distance From Urban Built-up Area   |  |  | (15)  | <b>0</b>                    |  |
| 6. Distance To Urban Support Services  |  |  | (15)  | <b>0</b>                    |  |
| 7. Size Of Present Farm Unit Compared To Average   |  |  | (10)  | <b>0</b>                    |  |
| 8. Creation Of Non-farmable Farmland   |  |  | (10)  | <b>0</b>                    |  |
| 9. Availability Of Farm Support Services   |  |  | (5)   | <b>4</b>                    |  |
| 10. On-Farm Investments  |  |  | (20)  | <b>10</b>                   |  |
| 11. Effects Of Conversion On Farm Support Services   |  |  | (10)  | <b>0</b>                    |  |
| 12. Compatibility With Existing Agricultural Use   |  |  | (10)  | <b>1</b>                    |  |
| TOTAL SITE ASSESSMENT POINTS   |  |  | <b>160</b>  | <b>78</b>                   | <b>0</b>   |
| <b>PART VII (To be completed by Federal Agency)</b>  |  |  |   |                             |  |
| Relative Value Of Farmland (From Part V)   |  |  | <b>100</b>  | <b>65</b>                   | <b>0</b>   |
| Total Site Assessment (From Part VI above or local site assessment)  |  |  | <b>160</b>  | <b>78</b>                   | <b>0</b>   |
| TOTAL POINTS (Total of above 2 lines)  |  |  | <b>260</b>  | <b>143</b>                  | <b>0</b>   |
| Site Selected: <b>Site A</b>   |  |  | Date Of Selection <b>6/4/14</b>   |                             | Was A Local Site Assessment Used?<br>YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| Reason For Selection:<br><b>There is no other land within or outside the preserve on which it is reasonably feasible to locate this project (§51292(a)(b)).</b>      |  |  |   |                             |  |
| Name of Federal agency representative completing this form: <b>Chris Carroll - Caltrans District 3</b>   |  |  |   |                             | Date: <b>4/18/14</b>   |

(See Instructions on reverse side)

Form AD-1006 (03-02)

## **List of Technical Studies**

Initial Site Assessment (Hazardous Waste, Caltrans 2014)

Natural Environmental Study (Biology, Caltrans 2014)

Historic Property Survey Report (Archaeology, Caltrans 2014)

Water Quality Assessment Exemption (NPDES, Caltrans 2013)

Noise Assessment (Noise Report, Caltrans 2013)

Air Quality Assessment (Air Quality Report, Caltrans 2013)

Visual Impact Assessment (VIA, Caltrans 2014)

Traffic Operational Analysis Report (Traffic Operations, Caltrans 2014)

Community Impact Assessment (CIA, Caltrans 2014)

Relocation Impact Memorandum ( Caltrans 2014)

Road Safety Assessment (Kimley-Horn and Associates for Caltrans, 2006)